

The National Future Farmer

June - July, 1989



Nonprofit Org.
U.S. Postage
and
Atlanta, GA
Permit No. 1617

The National FUTURE FARMER
5632 Mount Vernon Highway
Alexandria, VA 22309-0160
Address Correction Requested

AMERICA'S TOP FARM HAND 12 YEARS STRAIGHT.



Ford Division...3-Star Sponsor of the FFA

TOUGH '89 BIG FORD PICKUP- AMERICA'S BEST SELLER.

Americans go with the truck leader. For the past 12 years, Americans have chosen tough Ford pickups over all others.* And they're satisfied with their choice — because Ford has the highest percentage of *repeat* buyers of any full-size pickup!*** Last year Ford's F-Series pickups beat Chevy again by a big margin. Ford's built aerodynamic, Hi-Tech and tough — even better for 1989!

BIGGER ENGINE, MORE TORQUE!

Ford pickups offer a bigger stan-

dard Six — with 10% more torque than Chevy. V-8s range from most powerful small gas V-8 to biggest diesel in *any* pickup. Only Ford pickups offer four multiple-port electronic fuel-injected engines. When properly equipped, some Fords are rated to tow a 12,500-lb. trailer.

COMFORT, CAB CHOICE.

Ford offers a complete range of cab choices. There's a regular cab, SuperCab and 4-door CrewCab — with single or dual



rear wheels. The interiors of all Ford cabs are roomy and comfortable.

BIGGER CARGO BOX, MORE PAYLOAD.

Ford gives you a larger, wider, deeper pickup box than Chevy.



Buckle up — together we can save lives.

On many models, Ford carries more maximum payload than comparable Chevys.

AUTOMATIC LOCKING HUBS — STANDARD!

Now on Ford F-150 4x4s!

Fords also come with standard equipment the Chevy C/K doesn't. Features like halogen headlamps, AM radio with digital clock, and four gauge package.

All big Ford pickups have gas-pressurized shocks standard — unavailable on any Chevy except K1500. Ford was first with rear Anti-lock brakes, aerodynamic styling, and 4x4 Twin Traction Beam independent front suspension.

SPECIFICATIONS

ENGINES

145-hp. 4.9L EFI Six
185-hp. 5.0L EFI V-8
210-hp. 5.8L EFI V-8
230-hp. 7.5L EFI V-8
180-hp. 7.3L diesel

PAYLOADS

F-Series 4x2 pickups:
1575 to 5270 lbs.
F-Series 4x4 pickups:
1750 to 4295 lbs.

CABS

Regular 3-Man Cab
Ford 2-Door SuperCab
Ford 4-Door Crew Cab

MAJOR STANDARD

EQUIPMENT

Power brakes
Power steering
5-speed OD transmission
Gas-pressurized shocks
Electronic radio & clock
Full instrumentation

TRANSFERABLE 6/60 WARRANTY.

Covers you and future owners, with no transfer cost, on major powertrain components for 6 years/60,000 miles. Restrictions and deductible apply. Ask your Ford Dealer for a copy of this limited warranty.

BEST-BUILT AMERICAN TRUCKS 8 YEARS RUNNING.

Based on an average of owner-reported problems in a series of surveys of '81-'88 models designed and built in North America. At Ford, "Quality is Job 1."

Now's the time to buy or lease.

*Based on calendar year manufacturers' reported retail deliveries through 1988.

**Based on 1988 New Car And Truck Buyer Study.



FORD PICKUPS
BUILT FORD TOUGH

In This Issue

June-July, 1989
Volume 37 Number 5



12

Cover Story

12 *West Meets East*

Six national FFA officers travel to Japan, Thailand and China during their international experience tour. On the cover, the Great Wall of China winds through the mountains behind the national officers near Beijing. Photo by Dennis Shafer.

International



18

15 *International Marketing*

This issue's "New Ag Professional" is Chris Roe who travels around the world working for an animal genetics company.

20 *European Unity*

FFA's star farmers and agribusinessmen visit three European countries to find the European Community.

FFA



26

18 *It's Showtime!*

Here's how a Minnesota FFA chapter puts on a dazzling banquet, stress-free.

30 *Against the Odds*

A story of two FFA members who decided to venture into unknown territory.

Agriscience

11 *Figuring Out FastPlants*

These little plants flower 14 days after being planted. How do they do that?

16 *Aquaculture Double-feature*

First, ponds vs river-raised catfish. Then, aquaculture, the non-traditional experience project.

26 *Look Mom, No Soil!*

Hydroponics is catching on in high schools all over the country.

In Every Issue

6 News in Brief

8 Looking Ahead

10 Mailbag

24 Chapter Scoop

32 FFA in Action

37 My Turn

38 Joke Page

The Bottom Line

Food quality is getting a lot of press these days. Alar in apples, poisoned grapes from Chile, hormones in the beef we are trying to sell to Europeans—have all been in the headlines. Others worry about the environment and things like water runoff.

We are all concerned about the quality of our food and environment and rightfully we should be. But the problem is too many people are operating from ignorance and fear. So, how do we correct this situation. The answer lies in education. We need to make sure the people who produce and process our food know how and when to use chemicals correctly. We also need a population that is informed about agriculture, that knows what

people in agriculture are doing and why.

The National Academy of Science touched on the subject earlier this year in a report from its National Research Council and Board of Agriculture. The report is titled, "Understanding Agriculture, New Directions for Education," and says in part: "Most Americans know very little about agriculture, its social and economic significance in the United States, and particularly, its links to human health and environmental quality." The report goes on to say, "Few systematic educational efforts are made to teach or otherwise develop agricultural literacy in students of any age."

Any wonder people are concerned about their food and environment?

The FFA has taken a step in the right direction with the employment of a membership director to work on reversing the downward trend in the number of FFA members. Since a student must be enrolled in agriculture to join the FFA, this move may also increase enrollment in agriculture at the high school level. The end result will be a society more literate about agriculture.

The food and fiber industry of this nation is too important to leave to chance. School boards, superintendents, principals, legislators—all who influence what is taught in the high schools have a responsibility to see that our agricultural industry remains the world leader. We all have a role in that inspiring task.

Wilson Carnes

The National FUTURE FARMER

YOU can be in the WINNERS CIRCLE



Enter the National Corn Growers Association (NCGA) National Corn Yield Contest with your corn production project, your FFA Chapter's corn plot or one of your dad's fields and you could be recognized as one of the top corn producers in the country at the NCGA Corn Classic, February 21-23, 1990, in Phoenix, Arizona. Be sure to contact your local agribusiness supplier for information on additional incentives and awards.



Entry fee is \$50 per hybrid if your entry is postmarked no later than July 1, 1989. From July 2, 1989 to August 1, 1989 it is \$70 per hybrid, which must accompany the application. To enter the contest, you must have paid your 1989 membership dues either directly to the National Corn Growers Association or through your affiliated state corn growers association. Membership must be in the same name as shown on your entry form.

NCGA recognizes 1st, 2nd and 3rd place finishers in each state for seven different classes. In 1988, winners from 46 states were honored. In addition, there is national recognition for the 1st, 2nd and 3rd place finishers across the country in the same seven classes. The classes cover conventional tillage, no-till, ridge-till and irrigation.

Mail coupon below for your copy of the 1989 NCGA Corn Yield Contest entry and harvest rules.

MAIL TO:

National Corn Growers Association

1000 Executive Parkway, Suite 105
St. Louis, MO 63141
PHONE: (314) 275-9915

Please send me the 1989 NCGA Corn Yield Contest entry and harvest rules immediately.

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: _____

Magazine Staff

Editor-in-Chief, Wilson W. Carnes
Senior Editor, John M. Pitzer
Managing Editor, Andrew Markwart
Publishing Assistant, Linda Flint
Director of Advertising, Glenn D. Luedke
Advertising Assistant, Joyce Berryman
Circulation Fulfillment Manager, Dottie M. Hinkle
Assistants, Janet Magill, Harriett Fidd, Tracie Weekley-May, Nora Bartock, Veronica Ruffner

National Officers

National President, Dana Soukup, RR 1, Box 51A, Spencer, NE 68777; National Secretary, Jeff Johnson, Rt 2, Box 938, Dover, FL 33527; National Vice Presidents, Warren Boerger, 800 Rosedale Road, Irwin, Ohio 43029; Brad Chambliss, Rt 1, Hardinsburg, KY 40143; Jaye Hamby, Benton Station Road, Benton, TN 37307; Jeffrey Isom, P.O. Box 455, Fruitland, ID 83619.

Board of Directors

Chairman, Larry Case; Members of the Board, David Coffey, John Denmark, Terry Heiman, Leonard Lombardi, Donald Michael, Duane Nielsen, Les Thompson, William T. Woody

National Staff

National Advisor, Chief Executive Officer, Larry Case; Executive Secretary, Coleman Harris; National Treasurer, David A. Miller; Administrative Director, Wilson W. Carnes; Manager of International Programs, Lennie Gamage; FFA Program Specialist (Awards), Robert Seefeldt; FFA Program Specialist (Contests), Ted Amick; FFA Program Specialist (Leadership), Tony Hoyt; Director of Information, William Stagg; Director of FFA Supply Service, Dennis Shafer; Executive Director FFA Alumni Association, Robert W. Cox; Manager of Accounting, JoAnn Grimes

Advertising Offices

The National FUTURE FARMER
P.O. Box 15160

Alexandria, VA 22309 703-360-3600

The Brassett Company
5150 Wilshire Boulevard
Los Angeles, CA 90036

213-934-8502

Midwestern States
Karaban / Labiner Associates, Inc.
333 North Michigan Avenue
Chicago, IL 60601

312-236-6345

Pennsylvania, Delaware, New Jersey
Karaban / Labiner Associates, Inc.
130 West 42nd Street
New York, NY 10036

212-840-0660

Peter C. Kelly, Inc.
725 South Adams Road #260
Birmingham, MI 44009

313-642-1228

Robert Flahive Company
22 Battery Street
San Francisco, CA 94111

415-398-4444

The National FUTURE FARMER (ISSN 0027-9315) is published bimonthly by the National FFA Organization, 5632 Mount Vernon Memorial Highway, Alexandria, Virginia 22309-0160.

ADDRESS CHANGES: Send both old and new address to: Circulation Department, The National FUTURE FARMER, P.O. Box 15160, Alexandria, Virginia 22309-0160.

CORRESPONDENCE: Address all correspondence to: The National FUTURE FARMER, P.O. Box 15160, Alexandria, Virginia 22309-0160. Offices located at the National FFA Center, approximately eight miles south of Alexandria, Virginia.

SUBSCRIPTION: \$3.00 per year. S. and possessions (FFA members \$1.50 paid with dues, Single copy \$1.00; five or more 50¢ each. Foreign subscriptions, \$3.00 plus \$2.00 extra for postage. Copyright 1989 by the Future Farmers of America.

News In Brief

Invite Ronald Reagan to Convention

FFA members, parents, friends and supporters are encouraged to write to former President Ronald Reagan inviting him to speak at the 62nd National FFA Convention, November 9-11, 1989, in Kansas City, Missouri.

National FFA President Dana Soukup formally invited Mr. Reagan to speak at the convention in early February. Mr. Reagan's staff has replied, saying that the "invitation will be carefully reviewed as President Reagan's schedule develops, and we will be back in touch with you closer to the time about the possibility of his acceptance."

FFA members who would like to encourage the president to speak at convention should address their letters to: The Honorable Ronald Reagan, P.O. Box 15160, Alexandria, VA 22309-0160. The letters should begin: *Dear Mr. President:* and be either typewritten or handwritten with careful penmanship. Letters will be accepted until August 1, 1989, when they will be delivered to Mr. Reagan.

Souvenir Emblems on Sale

The words "Agricultural Education" are replacing "Vocational Agriculture" in the official FFA emblem. This means that the old emblems will soon be collectors' items when the current stock is gone. The FFA Supply Service is offering a framed emblem mounted on blue corduroy jacket material with a message that reads "The Official Future Farmer of America Emblem used from 1928 to 1988." The framed back (large) jacket emblem is available for \$5.95 (item JEM-F1). Both front and back emblems in the same frame are available for \$6.95 (item JEM-F2). Orders can be sent to: FFA Supply Service, P.O. Box 15160, Alexandria, VA 22309-0160. Please enclose check, money order or VISA or MasterCard number.



FFA Band Director Named



Bill Moffit

Bill Moffit of Jacksonville, Florida, has been named director of the National FFA Band. A nationally-known figure, Moffit served as Purdue University's marching band director for seven years. Moffit has been a band director for over 37 years including positions at the University of Houston and Michigan State University.

Moffit was director of the Fanfare Trumpets at the 1984 Olympics and the 1986 Pan-Am Games. He has written more than 400 marching band arrangements and has published several training books on the subject. Roger Heath, who served as the FFA band director for the past 20 years, retired following last November's national FFA convention.

Convention Attractions

A laser light show and three featured speakers are confirmed for this year's National FFA Convention. Thursday, November 10, will feature former Pittsburgh Steeler quarterback Terry Bradshaw, sponsored by the H. J. Heinz Company Foundation; motivational speaker Ty Boyd and a laser light show in the evening sponsored by ICI Americas Inc./Ag Products. Motivational speaker Mamie McCullough is slated to speak on Saturday, November 11. Other convention speakers are yet to be named.

FFA Scholarships Awarded

A total of \$250,500 in college scholarships, ranging from \$500 to \$25,000 each, have been awarded to 213 FFA members. The highest amount distributed to students in the history of the FFA Scholarship Program. FFA members receiving the scholarships will apply the money to tuition, housing and other college costs starting this fall.

**Give us one weekend a month
and we'll show you how to wipe out
your student loan.**



Zero in on your college expenses by serving part-time in the Air National Guard. As little as two days a month and two weeks a year can entitle you to substantial loan repayments, an enlistment bonus and additional assistance from the GI Bill. All on top of your regular salary. Just choose one of our critical skill jobs. And — depending on your specialty — you could wipe out your student loan. So set your sights on the Air National Guard. And say goodbye to your loan payments. Send in the coupon today, or call, toll-free, **1-800-638-0936**.

Programs, eligibility requirements and amounts are subject to change without notice.

Air National Guard

Americans at their best.

Send to: Air National Guard
P.O. Box 554, Hanover, MD 21076

Name _____

Address _____

City _____

State _____ Zip _____

Phone _____

Date of Birth _____



A2NFB1**069NP

Looking Ahead

U.S. to Process Canola

For the first time in the history of U.S. agriculture, canola will be crushed and refined in a major American processing facility. Until now, most growers have had to transport their canola to Canada for processing.

U.S. Canola Processors, a joint venture formed by Central Soya Company, Inc. and Calgene, Inc., is working with grain elevators throughout the Mid-South, Southeast and Midwest to buy canola for processing at Central Soya's plant in Chattanooga, Tennessee. Canola was formerly known as rapeseed.

Install Microwave Ovens

"Today, there are more microwave ovens in American homes than VCRs, toaster ovens or even dishwashers," explained Sue Whittier, director of consumer relations for the Campbell Soup Company, speaking to the National Potato Promotion Board's annual meeting in March.

"The microwave oven is nourishing the increasing demand for convenience. Not since the introduction of the home freezer has an appliance had such a profound impact on how and what we eat. Today, a baked potato that used to take 45 to 60 minutes takes only five," she said. "Recent consumer surveys revealed 62 percent of consumers say they use microwaves three or more times a day, with one-third saying their microwave was their primary cooking appliance."

Another food science expert, Dr. John Stanton, St. Joseph's University, Philadelphia, Pa., has predicted that microwave ovens and microwave cooking will increase dramatically by the year 2001.

Stanton has indicated that as the new century begins, 90 percent of American homes will have one microwave oven, compared to 70 percent now having one; 50 percent of the homes will have two; and 25 percent of our cars will come equipped with a small microwave oven.

For those people "eating on the run," Stanton predicts there will be "one-handed food," easy to open and prepare in the car microwave, and easy to eat with one hand while driving. Already, 25 percent of American workers eat breakfast in the car.

Dow Elanco Inc. Formed

The Dow Chemical Company and Eli Lilly and Company signed a Letter of Understanding to form one of the largest research-based agricultural companies in the world.

The new venture will have total projected sales of about \$1.5 billion in its first year of operation and includes both parent companies' plant science businesses as well as Dow's industrial pest control business. The Elanco animal health business will remain with Eli Lilly.

The new company will be called Dow Elanco Inc., with its headquarters located in the Indianapolis area.

Animal Rights Video

A nine-minute videotape released recently by the National Cattlemen's Association illustrates the need for the beef industry to position producers as responsible caretakers of their livestock. "Our Side of the Fence" shows how farmers launched a public education campaign in Massachusetts when voters were asked to decide on the quality of

care that farm animals receive. "You'll hear consumers tell how messages from both farmers and activists influenced public thinking, and how ultimately the public sided with the farmers," said Tom Cook, NCA industry affairs director.

Copies of the videotape are available free from the Communications Department of the National Cattlemen's Association, P.O. Box 3469, Englewood, Colorado, 80155.

Fast Food Frying

Hardee's, the third-largest fast food hamburger restaurant chain in the U.S., was recently presented with an "Award of Excellence" by the North Carolina Soybean Producers Association for switching to an all-vegetable cooking oil to prepare all of its fried products. It is the only major hamburger company to do so. Hardee's now uses a blend of 80 percent soybean and 20 percent peanut oil to deep-fry its food products. Other fast food chains use imported palm and coconut oils which are higher in saturated fats.

Know Before You Mow

The "Knowing Mowing" program is a 90-minute hands-on course in lawn mower safety for young people 12 and up sponsored by Briggs & Stratton Corporation and American Red Cross. It is conducted by local Red Cross chapters and covers safety, mower maintenance and first aid. The course is taught by volunteer instructors, age 17 or older, who are trained by Red Cross personnel.

The course was created "as a response to distressing statistics which show that more than 60,000 injuries related to power lawn mowing occur each year," said George Thompson, Manager, Corporate Communications Manager for Briggs & Stratton. "But almost all these accidents could be prevented by practicing safe lawn mowing techniques. So we created 'Knowing Mowing' to help educate the mower operator."

Briggs & Stratton, which sponsors four regional winners of the National FFA Fruit and/or Vegetable Production Proficiency



When mowing on a hill with a walk-behind mower, mow across the hill not up and down.

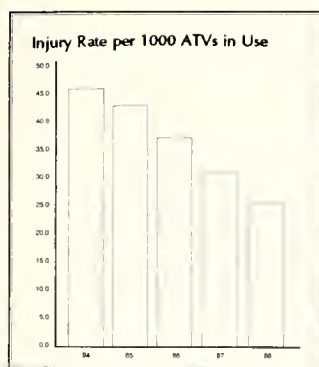
Award, is the world's largest manufacturer of small engines for lawn mowers and other outdoor power equipment.

Briggs & Stratton furnishes all the materials for "Knowing Mowing" without charge. Participants receive a "Knowing Mowing" cap, wallet card, safety poster and certificate.

ATV Injuries Down

The Specialty Vehicle Institute of America reports that estimated ATV (All-Terrain Vehicle) injuries and the injury rate have both declined by 19 percent for 1988, as compared to 1987.

Since 1984, the ATV injury rate, which is based on estimated ATVs in use, has dropped a total of 46 percent. Estimated injuries are compiled by the U.S. Consumer product Safety Commission through its National Electronic Injury Surveillance System. The statistics are based on the reports of 65 hospitals nationwide.



The program is available through approximately 300 Red Cross chapters nationwide, and it is estimated that more than 32,000 people will take the course this year. Since the program began in 1985, more than 40,000 people have been trained in "Knowing Mowing."

If your FFA chapter is interested in "Knowing Mowing," get in touch with your local Red Cross. If they currently offer "Knowing Mowing," they can arrange instruction for your members.

If your Red Cross is not yet offering it, they may welcome your interest and help. FFA chapters could undoubtedly assist a great deal by providing volunteer instructors for the course.

If your local Red Cross chapter is not familiar with the program, they can obtain full information and materials by contacting: "Knowing Mowing," Suite 300, 606 East Wisconsin Avenue, Milwaukee, WI 53202, Telephone (414) 271-7434.

Said Thompson, "FFA members spend a lot of time working with power mowers and other outdoor power equipment. 'Knowing Mowing' might help make sure that a morning spent mowing the lawn doesn't result in an afternoon at the hospital emergency room."

...

June-July, 1989

You win 4 ways when you choose BUCK®

There are lots of knife brands to choose from. Some good. Some not so good. We think none so good as BUCK. We admit to a bit of bias, so to back it up we offer you these four reasons:

1 Most important of all, every Buck blade *holds* an edge. Why? It starts with the steel, fabricated in America to our demanding specifications. What kind of steel? Modified stainless steel, with high-chrome, high-carbon content to deliver the advantages of both components. Then we temper it to the ideal Rockwell hardness (56-58). And our steel is truly "stainless" when exposed to water. Especially salt water.)

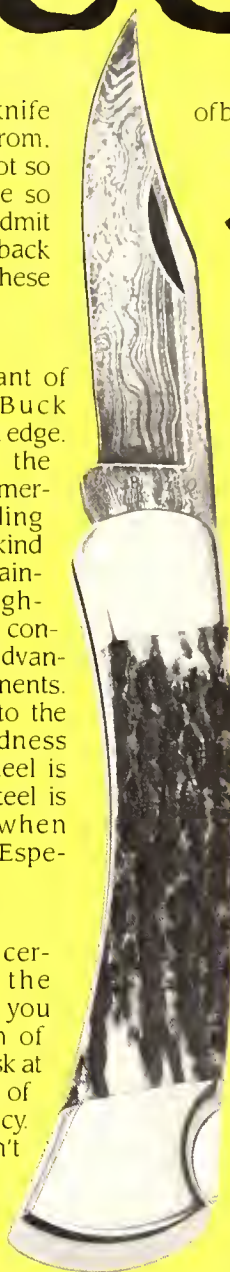
2 Buck almost certainly has the blade *shape* you need. Proper match of blade shape to the task at hand makes a world of difference in efficiency. Look around; you won't find a broader range

of blade shapes than Buck's.

3 Hand-crafted excellence. Check the detail on any Buck knife. You'll find it's precision-made. Take a folding knife. Open it. Is the blade stable? Is there a perfect fit where the blade meets the rocker? If it's a Buck, the answer is yes. These are not "cosmetics." They determine whether or not you can depend on your knife when you need it.

4 We guarantee it! Our lifetime warranty means what it says. As long as you own your Buck Knife, we guarantee it against defects in materials or workmanship.

That's the Buck story in a nutshell: Blades that hold an edge. The right blade shape for the job at hand. Precision workmanship that ensures dependability. Backed by our Lifetime Guarantee. Four good, solid reasons to look for the name BUCK on your next knife.



**BUCK
KNIVES**

Famous for holding an edge!

For free "Knife Know-How" booklet, write:
BUCK KNIVES, INC., Dept. NFF-689, P.O. Box 1267, El Cajon, CA 92022

Mailbag

Agrees With Warren

I enjoyed the article that Warren L. Boerger wrote on drinking and driving. I believe that if everyone would help out that we could start a nationwide FFA campaign against drinking and driving because life is too precious to end it by making a stupid mistake.

I hope that everyone will listen and remember what Warren quoted when he said, "You knew what I was before you picked me up!"

Christy Phillips
West Fork, Arkansas

Chapter Closings

As an FFA member I believe that the true heart of any chapter is the members, the goals that they set and the dreams that they make. I truly feel that FFA has a very bright future to look forward to. I also know that there are many people who feel exactly the opposite.

Just this year there will be about five chapters in Colorado that will be shut down. I know how the members of those chapters feel because our chapter was in the same situation in April of last year. I would really appreciate it if you would

publish this article in *The National FUTURE FARMER*. Not only because it would benefit my chapter, but also offer hope to other chapters around the United States that are close to being shut down.

Jodi Jacoby
Bennett, Colorado

See FFA in Action item, 'Don't Let the Gate Slam Shut' on page 33 of this issue—Ed.

Suggestion Box

I liked the pull-out poster "FFA Pride," (February-March, 1989) and feel more of them are needed.

Could "Career Choices" be a regular article with an unusual ag career highlighted each month?

Can you put an Alumni section in? There are so many more FFA Chapters that do not have an affiliate. The FFA should be promoting more of them.

Lexie & John Poulson
Hamler, Ohio

Be sure to check "The New Ag Professionals" each issue for career ideas.—Ed.

Thanks for Your Help

I am a member of FFA and I'm proud of it. I want to be a real future farmer.

Thanks for the article on "Career Choices" (February-March, 1989)! With the help of Mrs. Frulla, my horticulture teacher and Mr. G. Jones, my agriculture teacher and your issue of the magazine, my plan is to become a florist or horticulture teacher.

Ethel Rawlings
Chase City, Virginia

Put Up Posters!

How can I help to encourage people to join FFA?

FFA has given me so much, like new friends. Lately, however, I have noticed a lack of interest in our organization. People don't realize what FFA can do for you.

There is a demand for qualified people to fill agricultural jobs, but no one can see that. Somehow, if every member could help promote FFA, maybe membership would increase. I am not talking about anything major, just putting up FFA posters and giving out booklets in your community.

Gina Bufford
Tignall, Georgia

Texas Changes

Since I live in Texas, I have experienced the change that has been put into effect this year, which is talked about in the April-May, 1989 issue of *The National FUTURE FARMER*. I enjoy the new change in the SOEP because it gives a person a larger choice of courses.

Bob Anderson
Breckenridge, Texas

Color Calendars in 1990

The Supply Service appreciates the letters received this year regarding the 1989 Home and Office calendar. Increasing costs motivated us to alter this calendar, which resulted in the elimination of the color photographs of FFA activities. However, due to your response to this change, we are happy to announce that color photographs will again appear in the 1990 version of the Home and Office calendar.—Dennis Shafer, Director, FFA Supply Service

Send letters or notes with name, address and chapter to MAILBAG, *The National FUTURE FARMER*, P.O. Box 15160, Alexandria, VA 22309. All letters are subject to editing.



Stewart Named As Membership Development Specialist

programs.

Stewart will leave his position as manager of National Leadership Conferences, including Washington Conference Program (WCP) and Made For Excellence (MFE), to assume his duties in Membership Development starting August 1.

Before coming to the National FFA Center in 1988, Stewart taught agricultural education for two years at Midway High School in Dunn, North Carolina. He had served as WCP counselor in 1985 and director in 1986. Stewart served as 1981-82 president of the North Carolina FFA Association. He is a graduate of North Carolina State University. Stewart's wife, Candice, also works at the National FFA Center in the Supply Service.

Marshall Stewart of Alexandria, Virginia, has been named Program Specialist, Membership Development, for the National FFA Organization.

The membership development specialist is a new staff position at the National FFA Organization. It was created to focus on increasing FFA membership within the existing population of agricultural students, increasing enrollment in agricultural education and to coordinate membership development in the ongoing FFA

Figuring Out FastPlants

A Wisconsin agriscience class discovers a new world in plant life

There is a little green and yellow plant causing quite a stir in Wisconsin agriculture classrooms—and around the world. It is called the FastPlant, a member of the cabbage family, who's growth cycle has been accelerated to the point that it flowers only 14 days after it has been planted.

Students in the Beaver Dam, Wisconsin, agriscience department have been experimenting with the Fastplants for three years. Instructor David Laatsch attended a 1987 summer workshop designed for biology teachers that featured Fastplants. Laatsch quickly saw the possibilities for use of these plants in teaching agriscience and introduced them to his class in the fall of 1987. The next summer, Laatsch put on a one-week workshop for agriculture and other science teachers. Popularity of the plants has spread across the state from there.

The plant was developed by Dr. Paul Williams, a plant pathologist at the University of Wisconsin. The FastPlant is the result of 15 years of William's research of the *brassica* plant family that includes cabbages, broccoli, and mustard.

"Cabbage is important to Wisconsin because of the kraut industry," explains Laatsch. "That's why the university has Dr. Williams, who is specifically involved in cabbage diseases. He wanted to be able to test certain disease-resistant varieties in a short period of time."

Brassicas are biannuals, which means they must go through a full year of vegetative lifecycle to be able to come back the next year in the reproductive cycle. For researchers, the two-year wait was taking too long to see the results of their tests.

Williams took the brassica family



Beaver Dam agriscience student Curt Sonneman pollinates a two-week-old FastPlant.

members and selected for one characteristic, early flowering. Within a test group, he selected the top ten percent that flowered early and bred those together. After a number of generations (12 crosses) of crossing the top ten growers, he had plants that were blooming and running a full lifecycle in just 36 days.

This was the birth of FastPlants—the brassica lifecycle that normally would take two years now takes one month, and research is accelerated dramatically.

The plants were also bred to be day-neutral, which means they will accept light 24 hours per day, which increases their growth rate considerably. Williams also selected plants that grew best under florescent lights which makes them adaptable to experimental and classroom conditions.

Williams says that over 1,300 scientists around the world in 44 countries use the plants as research tools. Researchers and educators from Sweden, England and Japan have recently visited him to explore the plant's possibilities.

Laatsch says his students use the plants to study plant growth, plant physiology and genetics. "The part I like about it is the "wow factor,"" says Laatsch. "Wow, they grew this much or wow, they've got blossoms on them and last Friday they didn't. They are seeing it all happen right here in class."

The students also conduct their own experiments, treating the plants with different levels of herbicides, oil and road salts to test their tolerance to such chemicals. They also can test how the plants are affected by different amounts of light, colors of light or whatever interests the student. The experiments are made to be displayed in the showcase in front of the agriscience classroom.

FastPlants are one of the many innovative tools used by Laatsch, whose classes have been science-oriented since he began in Beaver Dam in 1976. Since Laatsch's courses are part of the science department, his classroom is about to be moved out of the vocational area of the school into a new addition being built on to the science department.

"David Laatsch epitomizes, to me, the very best in agricultural science because he challenges teachers and students to use their intellect and to develop their thinking in science," says Dr. Williams. "The FastPlants provide an avenue for doing that." Laatsch was a central region finalist in the Agriscience Teacher of the Year program in 1986.

Williams says the FastPlants are the first step in a nontraditional, creative style

The brassica lifecycle that normally would take two years now takes one month

of teaching called, "creative exploration." "Our country is failing in its science education and agricultural education because we are providing our students with all of the answers instead of giving them an opportunity to discover 'the art of discovery,'" says Williams. "Much of what we do is have the students grow things, observe and then ask questions. We lead them to the answers, but we always say there is no single answer. It's a way of opening the mind. I view every class capable of doing original (scientific) research and publishing it using these materials. Why not?"

For more information about FastPlants, write to: FastPlants, Carolina Biological Supply Company, 2700 York Rd., Burlington, NC, 27215.

West Meets East

National Officers visit Japan, Thailand and China

It was an eye-opening adventure for Dana Soukup, Jeff Johnson, Warren Boerger, Jaye Hamby, Brad Chambliss and Jeff Isom. On February 3, FFA's six national officers set-out on a 17-day journey that would lead them through the Oriental countries of Japan, Thailand and China.

The trip celebrated the tenth anniversary of the annual International Experience Program for National Officers sponsored by Mitsui & Company, a major Japanese trading company. The officers were accompanied by C. Coleman Harris, national FFA executive secretary; Dennis Shafer, director, FFA Supply Service and Lennie Gamage, FFA international program specialist.

The tour took the officers to agribusinesses and historical landmarks throughout the three countries, including the Great Wall of China. They traveled to Tokyo, Kyoto and Osaka, Japan; Bangkok, Thailand and Beijing, China. The officers also met with members of the Future Farmers of Japan and the Future Farmers of Thailand.

Upon their return, *The National FUTURE FARMER* interviewed the officers to find out what they had seen and learned in the Orient.

TURE FARMER interviewed the officers to find out what they had seen and learned in the Orient.

Japan

National *FUTURE FARMER*: What are your impressions of the Japanese people?

Isom: I remember looking across the street at 10 p.m. at night and seeing lights on in the office buildings. Not just one person, but the entire office staff sitting at their desks working late at night. Everything was dead on the streets but they were still up there plugging away. They're driven by their spirit to succeed, not just occasionally, but all the time.

NFF: Why is that?

Boerger: There's a high demand for quality. The product doesn't go to the shelf unless it's high quality because the Japanese consumer demands that type of product. They don't settle for second best.

Chambliss: They were so interested in making every detail the best that it could be and that reflected a lot in their products.

It was impressive to see the quality they have.

NFF: The United States is huge. Japan is about the size of California and yet they are a challenging economic power to us. How does that happen?

Johnson: They produce a product that fits the market. We are guilty of thinking, "if it's American made then it's the biggest and the best, so you should like it." The Japanese look at it as "what do you want? How can we help you?" It opened my eyes. Maybe some of the things we have aren't the biggest and the best! Maybe we need to stop and look at the way we do things.

NFF: Why do you think that the Japanese produce such good products for export?

Hamby: They can be more efficient than we can because their factors of production are so centralized. In our case, we might have to use steel from 600 miles away because that's where it's manufactured. Paint comes from another area. We have all these transportation costs.

NFF: Do you see the lifestyles of the Japanese people changing as they become more Westernized (more like the United States)?

Isom: Yes. The reason Disneyland of the United States is so incredibly popular is because it's devoted to one thing—leisure time. The Japanese just love Disneyland. They have a Tokyo Disneyland now. The young people are wanting that kind of lifestyle. A lot of the young people we talked with at Mitsui would take off on the weekends and go skiing. The young people don't want to work as much. Western culture is becoming very important.

NFF: Do you think that's good or bad for the country?

Isom: The same thing is happening to them that happened to the United States. As they become more productive they start having more leisure time. It's going to be a continuing cycle. We can see Korea and Thailand, Malaysia and Singapore becoming the new Japan.

NFF: How can we export more goods to Japan?

Johnson: The Mitsui people said that Americans don't take the time to learn the



Jeff Isom and the other officers had to overcome language barriers when they spent a weekend with Japanese host families. Isom stayed with the Tatsuya Murata family in Yame-eki-cho.

Japanese culture or learn the marketing system over there. We take our culture and the way business works here and rush over there and try to sell and it isn't the way they do it. That's where the big clash comes. They're very slow, methodical, analytical and we're go, go, go.

Hamby: For example, in the automobile industry, they're modelled after the British system. They drive on the left-hand side of the road. So the steering wheel is on the opposite side. But when they export automobiles to the U.S. they put the wheel on the other side. They say if the U.S. was to try to enter the automobile market in Japan, we wouldn't accommodate that change for them. We'd just say, "well, that's where it's placed in the United States so you'll have to take it that way."

NFF: Tell me about your host family stays.

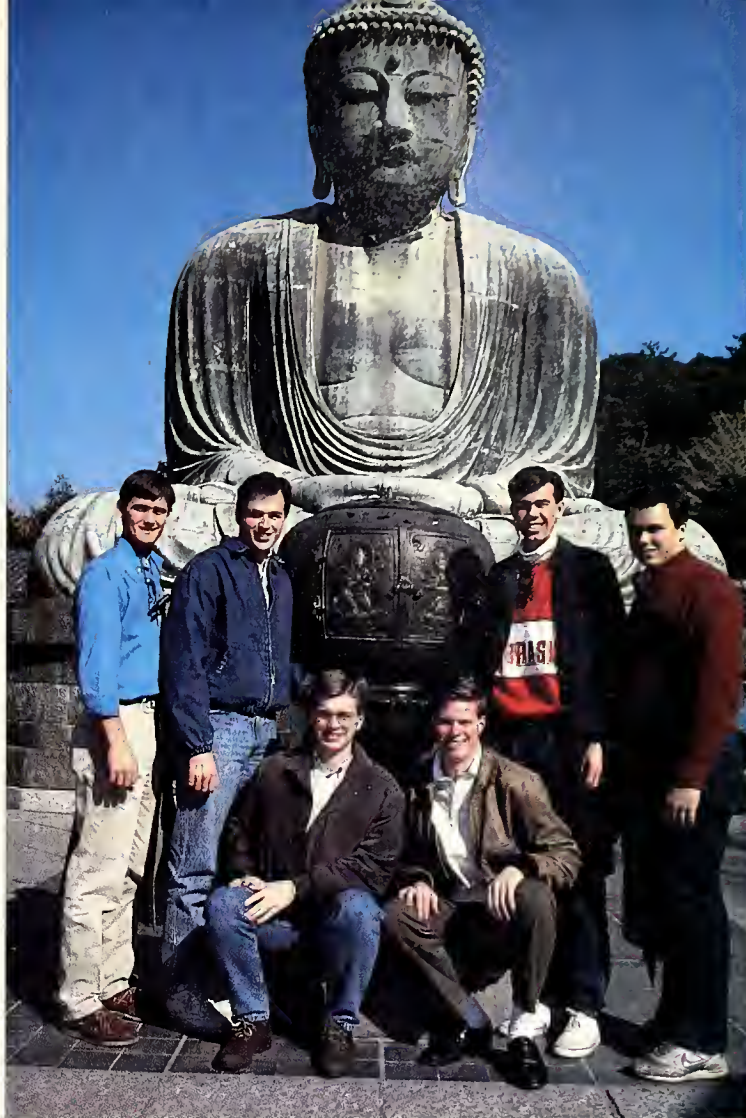
Chambliss: I felt it was the best part of the trip. Japanese families are very private about where they live, so to get the chance to go into their homes and to get to know them was great. The language barrier was difficult but it was fun. We stayed up until 11:30 one night talking and sharing and they're used to going to bed at about nine. It may take ten minutes to get across one thought, but once you did, it was a really nice feeling of accomplishment.

Thailand

NFF: What are the major challenges that face the economic development of Thailand?

Soukup: Their biggest challenge is distributing the wealth evenly. They have the very rich and the very poor. I was really surprised how economically developed Thailand was. I thought of it as almost a third-world country and yet they are very much the economic power within that area of Asia. But their environment is suffering. Pollution is very bad. They are eliminating all their forests.

Isom: The best way to describe Thailand is an economy out of control without the infrastructure (highways, railroads, public utilities, etc.) to support it. They are just going hog crazy over there producing everything you can imagine at very cheap prices. Labor is almost nothing. They can export it all over the world and compete very nicely. They're starting to make higher quality products and will be a competitor for Japan in the near future. But right now they don't have the infrastructure to support it. They have power shortages frequently in the cities. They don't have the distribution networks,



In Kamakura, Japan, the officers found the "Image of the Great Buddha." Left to right are officers Brad Chambliss, Jeff Johnson, Jaye Hamby, Jeff Isom, Dana Soukup and Warren Boerger.

The officers visited the "Forbidden City" in Beijing, China, where generations of Chinese emperors made their home.



electrical supply, natural resources to keep everything running. But the economy is just spiraling upward. They're more productive all the time.

Boerger: Agriculturally, what they need is education, and how to use irrigation. They could increase their production at least by half. Secondly, they're required to go to school up to the sixth grade, so they get only half the education we do. Even though it's a law, it is not enforced by the country. When we would

stop for gas, having a ten year-old come up and pump gas was not an uncommon sight. You can't expect change to come about until the people are educated.

Boerger: You're not going to see industrialization in agriculture because of their cost of labor. If you can pay someone \$3 or \$4 a day, or less, to work out in your field, you can't afford to have a mechanical harvester do the work for you.

(Continued on Page 14)

West Meets East

(Continued from Page 13)

NFF: What are its differences and similarities of the Future Farmers of Thailand to the FFA?

Boerger: Same motto, same emblems for office, same basic structure. As far as being different, their ages. Their members are 24, 25, 26 years old.

Hamby: We also see high schools specialized where they teach agriculture in almost a college setting. The students aren't living at home; they're on campuses at the agriculture schools.

Isom: In some ways FFT is a bigger part of their lives than FFA is here. It seems to be more integrated completely into what they are doing probably because they're living at the school. It is the social activity.

Soukup: They have some very pro-

fight in that neighborhood.

Dennis Shafer: You've got Laos, Burma, Cambodia, Vietnam, and then there's Thailand right there in the center, independent and democratic, totally surrounded by a communist world.

China

NFF: How is China different?

Johnson: We had been to all these places that were so colorful. In Tokyo you could feel the city; Bangkok you could feel the city; everything alive, everything bustling. Fly into China and you're just hit—there's no color. We're in a new airport that looks 150 years old. You're met by guards with guns when you get off the airplane.

Hamby: The contrast between Bangkok and Beijing was incredible. Shocking.

Bangkok had free enterprise, democracy, and action and you enter Beijing and it's very regimented, communist. Everything has its place.

Soukup: There was very close scrutiny on foreigners and there is a two-money system. One for foreigners, one for the Chinese people. You can't stay in the same hotels; you have to have an invitation to enter the country; you have to go with a travel service; and they only take you places that they want to take you.

Isom: A big problem with China is its population. They have so many people and they can't take care of them. They can't produce enough food, housing, material goods.

Boerger: They store their grain on roads, big concrete pads out in the weather, where insects, rodents and rain gets to it. There wasn't any other place to store it. It's no wonder they have problems feeding themselves.

Johnson: You really get the feeling that nobody really knows who's in control. If they had to pinpoint one person, they wouldn't know who it would be. It's just "the government."

Hamby: It's shocking, but you'll have these government officials that will call labor "a peasant" or "the common people." Whereas here we are all treated as equals, for the most part. We wouldn't consider anyone who worked in a factory any different than a congressman.

Soukup: Their agriculture is very primitive, too. Very small farms, all hand labor, no fertilizer or pesticides.

NFF: Any bright spots at all?

Soukup: The people. You don't give the people "a little bit" of freedom. Communism and capitalism don't go together. I think it's going to be interesting to see what happens government-wise.

Boerger: People everywhere want a better life for themselves. They want to have the best. And now the Chinese are starting to see the Japans, and the Americas, and the EC (European Community) and then they look what they've got and the restrictions they have. It's the same as the Russians; you give them a little bit of freedom and they're going to want to go the whole way.

NFF: How have your views changed as a result of this trip?

Johnson: As Americans we're guilty of bunching these countries all up together. We say "that's the East." If we've learned one thing, it's that they're different. The difference between Japan and China is like the difference between the



Workers, mostly women, make \$3 a day on cassava plantations in Thailand. The roots are used for food products, such as tapioca, and livestock feed.

gressive contests, like aquaculture, landscaping. They've been doing this since they started. One of their problems is that national education is not perceived well by parents, people in general because the parents want their children to be white collar workers and lawyers and bankers.

NFF: Any local impressions?

Coleman: I think it's important to know where the world is in the world. It's just amazing what Thailand has done considering their neighbors.

Boerger: It's tough not to get into a

It wasn't like going to three different countries, it was like going to three different worlds.
—Brad Chambliss

United States and Mexico.

Chambliss: We got exposed to everything—a developed industrialized nation (Japan), a developing nation (Thailand) and what I would call an underdeveloped nation (China) even though China is put in the developing country category. We saw it all. It wasn't like going to three different countries, it was like going to three different worlds.

Soukup: This points out how we've got to be competitive with them. Again, we've got to understand those differences and be willing to learn about other people. ...

The International Experience Program for National Officers is sponsored by the Mitsui Grain Corporation, Mitsui & Company (USA), Incorporated, Mitsui & Company, Ltd., as a special project of the National FFA Foundation.

The New Ag Professionals: International Marketing

by Jeri D. Mattics

How would you like to spend over half of your time traveling around the world representing a product that you believe can make a difference in the lives of your customers? Chris Roe feels it is the chance of a lifetime.

Roe is an area director of marketing for World Wide Sires, Inc. based in California's San Joaquin Valley. His territory consists of Scandinavia (Denmark, Finland, Norway and Sweden), and North Africa including Algeria, Egypt, Nigeria and Morocco. World Wide Sires, Inc. is a marketing firm which represents nine major genetic cooperatives in the global marketplace.

Most of his sales are on an individual basis, so Roe, 24, spends much of his time working with farmers helping them choose the semen and embryos that he feels will be best for each operation. "It's important to understand the different cultures and customs when working with people on an individual basis. It also happens to be one of the most interesting and challenging parts of my job," says Roe.

Roe also represents World Wide Sires at agricultural trade shows and works with foreign government officials. All imported semen and embryos must meet certain health requirements.

One aspect of his career Roe finds satisfying is the positive impact he can make in other people's lives. "It's interesting to see the impact a small company can have. In North Africa, there is a definite hunger problem."

"By importing U. S. genetics via artificial insemination and embryo transplants, the local farmers can make tremendous improvements in their herd at a rapid pace. The local governments are beginning to recognize the improved production and are now assisting the local dairy industry," says Roe.

Roe has only been with World Wide Sires for one year. So how did he land such an exciting position? According to Roe, it had a lot to do with college internships, extracurricular activities and his FFA background. "Some people take summer jobs just to earn money but I



Chris Roe with dairy farmers in Hungary.



thought I should take jobs where I could earn money and credits and set myself up for a good job when I got out."

Following his freshman year at the University of Wisconsin—Madison, Roe worked at his hometown newspaper to explore journalism. He spent the summer of his sophomore year working for Select Sires' information department. After his junior year, he accepted an internship with Dow Chemical U.S.A. in sales and marketing.

Get Involved

Roe graduated from the University of Wisconsin—Madison with dual majors in agricultural journalism and agricultural economics. While at the university, Roe was active in a number of collegiate organizations including Dairy Science Club, NAMA (National Agri Marketing Association), Ag Student Council and Alpha Gamma Rho fraternity.

Because of his FFA background, Roe found it easy to get involved in collegiate activities. "I arrived at a campus of 45,000 students and still felt at home because I was surrounded by friends I had met through participation in FFA. My public speaking and parliamentary procedure background gave me the edge in running and holding offices on the collegiate level." Roe's dairy cattle judging experience in FFA helped him win a spot on the university dairy team which led him to the national judging title his senior year.

Roe stresses the importance of an open mind for today's high school students. "I think you need to keep your mind and your options open. Don't feel you need to know what you're going to do the rest of

your life when you enroll in college. I feel one of the most valuable lessons a person can get from internships is the opportunity to explore careers of interest. Don't specialize too early."

Roe also advises the importance of a solid background in agricultural basics. "Many of tomorrow's agricultural careers don't even exist yet. The area of biotechnology is exploding as rapidly as the knowledge base. The important thing is for students to have a basic understanding of how different agricultural systems work and be able to apply the technologies as they become available."

Roe plans on staying right where he is for awhile. "I see incredible opportunities in international agriculture coming. With fax machines, overnight delivery and the relaxing of trade barriers, our world is becoming increasingly interdependent," says Roe. ...

Career: International Marketing Representative

Education Required:
Bachelor of Science degree in ag business/economics

Starting salary:
\$24,000 - \$26,000

Raising Catfish in Ponds vs Rivers

High School Aquaculture Research Project Probes for Answers

By Ida M. King

The subject of pen-raised catfish has become a hot topic of conversation in Delaplaine High School since the first aquaculture class in the state of Arkansas became a research project on confinement fish farming. Five Delaplaine high school agriculture students in the 1987-88 school year were instrumental in putting the research program together and then making it work. The result has been a heightened interest in agriculture education in Delaplaine, a small community of 160 people.

The aquaculture project began when agriculture instructor Wendell Hogan polled students to see what type of new class would be of interest to them. According to Hogan, they chose aquaculture over wildlife management because it was a subject they knew little about and could apply to their community.

With funding available from the vocational and technical education division of the Arkansas Department of Education for improvement programs, the class worked on different ideas to submit so their project could be funded.

The class decided to raise fish in confinement cages in ponds provided by area farmers and to compare the growth of fish in ponds to growth rates in rivers.

Hogan contacted the Arkansas Game and Fish Commission's fisheries department for permission to place fish in public waters. The department granted permission and contributed 5,000 fingerling catfish and feed for one year. They later decided to contribute the fish and feed for the entire two-year project.

The class of five students was divided into groups with assignments of writing the grant proposal for the catfish research farming project. Deborah Walz of the Arkansas Department of Education gave the class a proposal writing guide and worked with them on the grant.

The proposal stated that the project would be an opportunity for students and teachers to gain hands-on experience in confinement aquaculture that could benefit local farmers, the area and the state with new data in raising catfish for profit.

The class' fifth draft of the proposal was accepted. On April 1, 1988, the school

received word that a \$23,300 grant had been awarded to the project. The school also contributed \$7,500 to the aquaculture project. The entire process from grant to operation of the fish farming project had been completely done by the aquaculture class students and FFA members.



Photo by Wendell Hogan

Aquaculture student Trent Kishner holds one of the catfish studied in the school's fish farming research project.

The students say this is the most interesting class they have ever had in school. Mr. Hogan added, "It's the most fun I've had as a teacher in a long time. It's also been more work than anything I've done in a long time."

Locations on the Black River near the school and a farm pond owned by Jack French a few miles away were selected to

grow the catfish.

Pens and docks for the two locations were constructed by the students. Each dock is 20 feet by 8 feet and holds four net pens and has an observation platform surrounding the pens for instructional purposes. The platform is covered with expanded steel and floats on 12 inches of plastic foam.

Each net pen was constructed of a 1/2-inch steel frame (4'x4'x5') with hooks for lifting. A 1/2-inch plastic-coated mesh was used to make nets for each pen which would house approximately 500 fish. Two additional pens were constructed, one for each site, to be self-suspended from the end of each dock for additional research.

Operation of the Project

With construction completed, the Arkansas Game and Fish Commission delivered 5,000 fingerling catfish between four and six inches in length, half to each location, on June 20, 1988.

During the growing season, which lasts from April to October in Arkansas, or when water temperatures stabilize at 60 degrees, regular monthly checks were made on the fish. Growth rates, feed consumption and comparisons of the locations were done. Half of the fish were harvested and released into Lake Ashbaugh, which shoulders the Black River in late November. The release was a requirement of the game and fish commission for their contribution.

Students found that the fish raised in ponds had a slightly higher growth rate. They also learned that disease caused by bacteria was a problem in river farming in the summer months, having lost nearly 50 percent of those fish. Fish placed in self-suspended cages were the largest and healthiest fish in ponds. The students concluded that better oxygen circulation caused this result.

Half of the fish remain in the cages to study overwintering effects. The research on this phase is not yet complete. How-

Catfish For An SAE?

Kristi Roberts of the Holdenville, Oklahoma FFA Chapter, decided to raise catfish for her Supervised Agricultural Experience (SAE) program after several interested people offered to help her chapter start an aquaculture program.

"The local (processing) plant wanted to help promote fish production in Oklahoma," she said. "They process a lot of fish, but most of them are brought in from out of state." A local catfish farmer and the county director of the soil conservation service also helped start the program.

The first step in her enterprise was building a pond. Aqua Farms in Holdenville, a division of the Red Arc Corporation, provided land behind their plant for a pond. Roberts said the soil conservation service then found individuals who donated their time and equipment to build the one-surface-acre pond.

Once the pond was built, the rest of the work was left to Roberts. She said that she

stocked the pond last April with 3,000 fingerling catfish about three inches long.

The FFA member borrowed money from the bank to purchase the 6,600 pounds of high protein feed required for the seven-month operation. She said the feed cost averaged 30 cents per pound of gain.

Gain was the primary objective, as with any production agriculture enterprise, so Roberts chose to use floating fish food instead of sinking feed to help monitor the fish. Since it was floating feed, she had a unique way of calling the fish to eat.

"I would go out with the feed and call the fish to eat by ringing a cow bell," she said. "It would look like boiling water when they ate well."

The most critical part of the operation was watching the oxygen level in the pond. Cloudy days can cause the oxygen level in a pond to drop drastically. This danger required Roberts to monitor not only the temperature of the water but also the air temperature, wind speed and other weather conditions.

"I bought a chemical test kit to check the water conditions," she said. "Usually, I had to check it only once in the afternoon when I fed and then again late at night before I went to bed."

If the oxygen level was low, Roberts used an aerator to help put oxygen back into the pond.

In November, Roberts harvested 4,321 pounds of fish for a total profit of \$1,198.60. She said she started the three-hour harvest after the pond was drained to about four feet of water. With the help of some nearby catfish farmers and other volunteers, she used large nets to contain the fish in a small area and then loaded them with a boom truck and basket into a live-haul truck. The fish were processed at the Aqua Farms plant.

Roberts has spoken about her non-traditional SAE program to many organizations including the Oklahoma Catfish Growers Association. For Kristi Roberts, her non-traditional SAE project has paid-off in more ways than one. "I made more money and gained more experience with my fish operation last summer than I possibly could have with a part-time summer job," said Roberts. ...

Melissa Thurston reported this story in the Feb.-Mar. issue of "The Outlook," the Oklahoma FFA Association publication.

ever, more fish were lost in the river due to temperature shock brought on by drastic weather changes than in the ponds. The river location lost about 100 fish in one day while the pond location lost about 20 all winter. They believe that the pond's ability to hold ice for a longer time helped stabilize the temperature there at a safer rate.

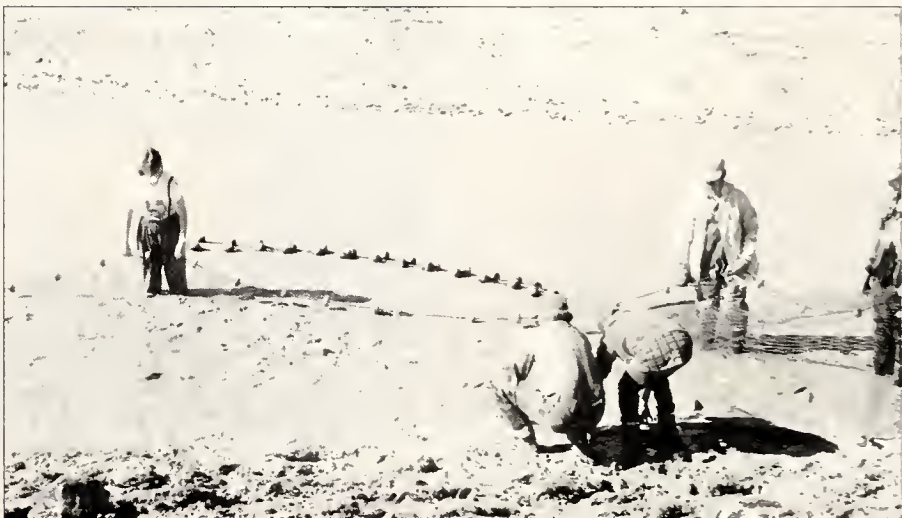
A new supply of fish was stocked in both locations this spring. Both the overwintered fish and the newly stocked will be harvested and released into area lakes and rivers in the fall.

When the project is complete in January of 1990, the class will compile all data and publish a full-color brochure, as outlined in their grant, to show their conclusions and techniques. Ten thousand copies will be available to Arkansas high school agriculture departments and agencies which provided assistance.

Hogan warns that anyone deciding to raise fish in public waters—rivers or lakes—needs to seek approval from their state fisheries department since regulations vary from state to state. ...

Monitoring the water's oxygen level is crucial in raising catfish.

Roberts harvested 4,321 pounds of catfish last November with the help of local catfish farmers and volunteers.





Randy Hedge, former national FFA officer, entertains the crowd with his high-energy presentation. Speakers sometimes need to be booked a year in advance.

It's Showtime!

This FFA chapter plans early to make their banquet run like clockwork

By Andrew Markwart

They've ripped-off ideas from the national FFA convention and it works beautifully. On April 8, 1989, officers of the Heron Lake-Okabena-Lakefield, Minnesota FFA Chapter stride into their high school gym to the 1988 Olympic theme music, beaming with confidence, charged with excitement.

An FFA "Leading Edge" banner spans across the back of the stage. A dynamite speaker is ready to take the podium. The first of four different slide shows is cued-up and ready to roll. Technicians manning the spotlight, video camera and sound system wait for their cues.

The footwork is done. The rehearsals are over. It's showtime!

The similarities between the Heron Lake-Okabena-Lakefield (HLOL) chapter banquet and a national FFA convention session are no coincidence. Every year about 20 members travel to Kansas City and return with a list of new ideas on how to make their one big night in April better than the year before.

Along with collecting new ideas, the members and advisors Keith Place and Louise Worm have also learned a thing or two about the planning and organization of a chapter banquet so it runs and looks like a mini-national convention.

Any one of the chapter officers or advisors will agree that the key to a *great* banquet rather than just a *good* banquet is organization. "A banquet of this size couldn't come together in two weeks," explains Mona Freking, chapter vice president. "We're organized this year and

I'm just sitting back and smiling," says Jeremy Freking, chapter president.

Racquel Siebert, chapter secretary agrees. "I've learned that if you're really rushed, you won't have fun, but I've just had a blast (this year) because we're so relaxed and it's so stress-free."

Planning for the 1989 banquet started one week after the 1988 banquet. Things really gear-up when school starts in the fall in "Agricultural Leadership" class. "We try to plan our program as early as possible so that we can find out if there are any flaws or any additions," explains president Freking. "We also go about the task of assigning people to various parts so everyone takes part in the banquet."

Sophomores and juniors are expected to help with the Courtesy Corps and the freshmen set the gym and tidy up afterwards. "It doesn't matter what you do, it feels good to be included," says Freking. "If you wait until the last minute, a lot of people could be overlooked."

There are dozens of details that need to be addressed in the first stages of planning. "Early in the year, we need to decide who our guest speaker is going to be," said Jeff Stumpf, parliamentarian. "We also check the date so it doesn't conflict with other school activities, reserve the gym and send out foundation donor letters to area businesses."

Thank You for Your Support

The foundation donors are local business people who give money that helps buy banquet awards and pay for other chapter expenses throughout the year. They are sent complimentary tickets to the banquet and a foundation donor slide

Photos by Author



Amy Nau, left, and Amy Freking narrate the contest slide show. Well-rehearsed slide shows add color and entertainment to a banquet. Slides should be taken throughout the year during chapter activities.

show is assembled during the year to honor them. "They do a lot for us," says Stumpf. "Without their donations, many things that we do wouldn't be possible. It's really important and it makes you feel good when you recognize them."

Like the National FFA Foundation, HLOL gives star ratings to their sponsors depending on how much money they contributed during the year. Members in the audience even clap once, in unison, for each donor—just like in Kansas City.

The slide show is presented on two screens. The largest screen carries a picture of the donor's business or the person, if they gave as individuals. These pictures were taken during Christmas vacation last year. The company or person's name is projected on a smaller screen below. These title slides are produced by printing the donor's name in large letters on the printer of the agriculture departments' computer. Then slides are shot of each name.

The foundation show isn't the only audio-visual that is worked on during the year. "When we go to contests, the camera is along so we can get our pictures then, in action, and not just by a wall afterwards," explains Racquel Siebert, chapter secretary. Slides are also taken during fundraisers and other chapter activities while they are happening.

Each student in the Agricultural Leadership class brings in a 35mm camera for one week early in the year and learns "the art of taking good pictures," so any of them are ready to shoot when the situation calls for a photo.

Overall responsibilities for the banquet are coordinated with the chapter's Program of Activities. Ben Hartberg, chapter reporter, makes sure that articles are placed in the local newspaper announcing the banquet one month in advance, "to let people know that it's coming and they need to mark their calendars." He also updates the local radio station on the date, time and location.

Public Relations

Advisor Place admits that beyond the awards and recognition, the banquet is really a "marketing tool" that informs the parents and community what the members are doing.

Recently, the HLOL chapter found how important the chapter banquet can be in educating the public about what is happening in the FFA. The school superintendent from Heron Lake, Mr. Richard Orcutt, was less than excited about the FFA chapter until, according to Jeremy Freking, "last year we sent him three tickets and he and his wife attended. A couple days after the banquet we received a thank-



It is an emotional time for seniors who know this will be their last banquet. Left to right are Jeremy Freking, Mona Freking and Racquel Siebert.

you note with money paying for the tickets saying how much he loved it. Ever since then, he's been backing us 100 percent. He was responsible for helping us purchase eight new IBM computers (this past year)."

It should come as no surprise that Mr. Orcutt received the Honorary Chapter FFA degree this spring.

In an attempt to educate the whole school, all faculty, school board members and administration are invited to the banquet. "If they can just see what we're doing here, it would help so much, but they have to get here first," said Mona Freking. "A lot of people are impressed."

Brent Droll, chapter treasurer, adds, "They don't expect something like this from a bunch of high school kids that they see driving around Main Street."

The Big Night

The night that has been planned and worked on for an entire year has gone well. The slide shows ran smoothly (one jammed last year) and no one got tongue-tied. Randy Hedge, former national FFA officer, entertained the crowd with a super-charged delivery of one-liners and humorous stories.

Ben Hartberg, who was too nervous at the head table to taste the food, feels good about the big night. "There's some things you learn by mistakes, but with a banquet like this, you learn by accomplishment."

Advisor Louise Worm, a veteran of 14 chapter banquets so far, believes this one was the best, due mostly to the preparation. "In the last month, the kids who worked on the banquet pulled together, they took it seriously. They've been able

to relax and concentrate on their speaking skills and on the timing of everything. They had the details taken care of."

It is a special night, especially for the officers, says Worm. "Only a chosen few get to speak in front of 450 people in their lifetime. For many of these folks, they'll never do it again. It's a one and only shot."

Jeff Stumpf agreed. "This banquet just seemed to bring out some of the speaking skills of some of the people—things you don't see everyday out of everyday kids. The banquet just seems to bring out the best in them." ...



A final private moment for the HLOL officer team before they perform opening ceremonies in front of 450 parents and supporters.

European Unity

Six star farmers and agribusinessmen discover why the European Community acts the way it does

By Andrew Markwart



Many of the stars learned about advanced European technology in Paris.

At the end of World War II, most of Europe was in shambles. Among other tragedies, the war had consumed the continent's money, buildings and food supply. People went hungry. To this day, Europeans have not forgotten what it feels like to be cut off from their food.

It's this memory of hunger that is the very foundation of the European Economic Community's (EC) domestic agricultural and foreign trade policy. They simply never want to be caught in the situation of depending on other countries for their food supply. To safeguard against it happening again, the government pays farmers subsidies to produce food that could be purchased more cheaply from another country. Imports are also taxed heavily to be kept out. It is a national policy based on history, not cost efficiency.

This lesson and many more were learned by six Star Farmers and Agribusinessmen who toured Europe, March 4-12. Lennie Gamage, FFA international program specialist explained the purpose of the trip saying, "It is important today to involve the stars in international agri-marketing and trade. We expose them to European farms and farmers to get their perspective. The stars need to have an understanding of the structure and policies of the European Community. The EC will become one market in 1992 and we have the opportunity to sit down with the experts involved in structuring that change. We also want to make sure they know

what the U.S. is doing through foreign trade offices and partner associations."

Hot Issues

The group spent four days in Germany meeting with young farmers and trade representatives and touring farms, agribusinesses and the historic city of Hamburg. Star Farmer of America Clint Oliver, Reidsville, Georgia, was impressed with the German young farmers' grasp of international agriculture. "They're extremely up-to-date on all foreign trade policies. They can go into great detail about all the trade of foreign countries; they know the statistics. Knowing about export and trade is really an important part of their lives."

While talking to the young farmers, the stars learned that many of the issues confronting U.S. farmers are also important in Europe. Scott Schelkopf, central region star farmer, Strang, Nebraska, said concerns about the environment, including groundwater pollution, were strong in Europe. "They're very, very strict about

what they do with their waste so it doesn't enter the groundwater," said Schelkopf. "In the United States we don't have to line our (manure) lagoons with plastic. I think that should be done, because the nitrogen gets saturated down into our groundwater, our aquifer."

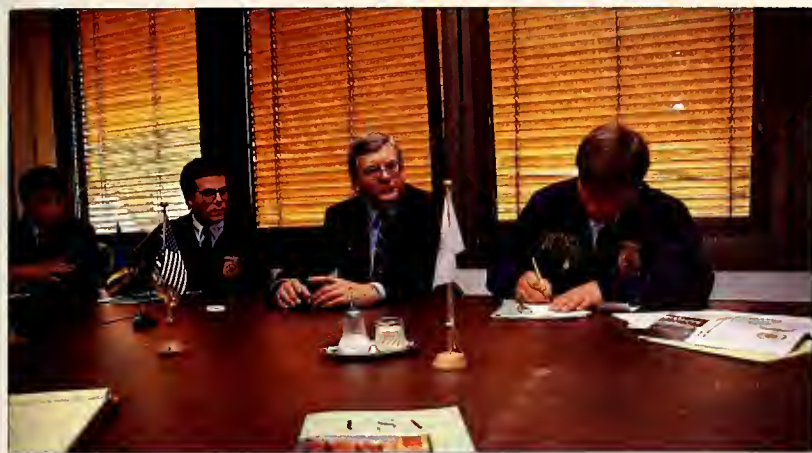
John Gosney, western region star agribusinessman, Fairview, Oklahoma, said that the European public is more aware of farming practices than the U.S. public, due mainly to past debates. "People understand farmers better. The whole population, along with farmers, have a more uniform view over here. There's not as much resistance to government policies because they feel like it is there to protect them." He says that along with public debate comes an opportunity to inform the masses about the truths of agricultural production. "It may be that until we start having more environmental problems, and awareness of that, we won't be able to educate the public about it."

(Continued on Page 22)

Photos by Author



For some of the stars, the high point of their trip was on top of the 228-foot high Fehmarn Sund Bridge with their German young farmer friends who had organized a tour of farms in northern Germany.



Above, at the U.S. Trade Consulate in Hamburg, Uwe Schmooke, Poultry and Egg Export Council, talks about expanding poultry products in the Middle East with, left to right, Rich Speer, Scott Schelkopf and Wes Eldred. John Gosney, right, examines nursery plants at the "Ferme de Gally," an agribusiness near Paris that emphasizes marketing, advertising and public relations. Far right, Scott Shelkopf, Steve Wilhelm and John Gosney pause on their tour of the Institut National D'Agronomie, the top agricultural university in France. Below, FFA official dress stares and some new friends in the Grand Place, Brussels, Belgium. The stars, left to right, are Wes Eldred, Steve Wilhelm, Rich Speer, Scott Schelkopf, John Gosney and Clint Oliver.



As in the U.S., the environment is a hot issue in Germany and other countries in Europe and has been for years. Most of the pressure in Germany comes from the "Green Party," a unified voice of environmentalists. Farmers are continually faced with new laws and rules concerning their use of pesticides and fertilizers. Gosney says those restrictions may be a sign of things to come in the U.S. "It may be a long ways in the future, but it's going to be like that where we live too. With the environmentalists and the EPA, it's all going to come."

Community Gathering

From Germany, the group flew to Brussels, Belgium, for a series of meetings with officials at the European Economic Community headquarters to dis-

cuss EC and international agricultural policies.

The European Community is comprised of 12 member nations; Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and the United Kingdom. These countries have, over the past 30 years, joined together to form an economic power comparable to the United States and Japan—something that could not be done by individual countries.

In 1992, all internal trade barriers will be lifted between the countries and the EC will take a giant step forward in becoming "a sort of United States of Europe," as Winston Churchill once said. There are 320 million EC citizens.

It was in Brussels that the stars learned about the ECs commitment to a secure food supply and stabilized farm sector. "It's amazing how much the people of the entire European Community support agriculture even though the policies are an extreme tax burden on them," said Oliver. "They're willing to pay the price to have a good agriculture program."

"They still remember the World Wars when food supply was a problem and people went hungry. In our country, everybody complains, but they don't remember the great Depression when food was a problem. It's always been taken for granted that food was going to be available," he adds. "There, they remember what it's like to be without food and they don't want to be in that situation again. Everyone I talked with were glad to support the farm program anyway they could."

High Technology

The final four days of the trip were spent in and around Paris, France, where the group toured the country's top agricultural university and attended the Paris International Agriculture Show. The stars were surprised to see the level of tech-

nology available in Europe. "Even though they have an older culture, their technology is right up there with us, said Steve Wilhelm, eastern region star agribusinessman, Custar, Ohio. "I was told back home that they were ten years behind us, but I was surprised when I found that they are right up there with us."

Rich Speer, eastern region star farmer, Blairs Mills, Pennsylvania, saw the level of technology at the Paris show as an indication of where the U.S. stands in international manufacturing. "I've seen that we've got to start looking at ourselves, our own country, not as a world leader, but as a competitor. If we don't start doing that, we might someday lose our world leadership in agricultural technology. I believe that we still have a bit of an edge, but if we don't keep up with our technology, it might not last very long."

Wes Eldred, western region star farmer, Bellingham, Washington, said he saw equipment that could be useful to many U.S. farmers. "There is so much more equipment here for the small farmer that is not even available in the states. So much of our equipment back home is geared toward larger-scale farming."

New Perspective

The European tour provided a new perspective for FFA's top award winners. Before returning home, Clint Oliver was asked how he saw the United States as a competitor in selling agricultural commodities in the world marketplace. Oliver replied, "They used to say the United States was the breadbasket of the world. It's no longer that. It's just kind of a contender. It's amazing how much market they (the EC) have taken over in the last ten years."

Accompanying the stars on their tour were Dr. David Coffey, National FFA Board of Directors member; Bernie Staller, executive director, National FFA Foundation; Lennie Gamage, FFA international program specialist and Andrew Markwart, managing editor, *National FUTURE FARMER* magazine. Unable to make the trip were Star Agribusinessman of America Chris Bledsoe, Eldon, Missouri and southern region star agribusinessman Phil Prater, McMinnville, Tennessee. ●●●



Scott Schelkopf inspects ventilation tubes from a high-tech swine production house in northern Germany. Some of the farm's manure is processed and sold in large plastic bags to urban markets.

The Stars' European tour is sponsored by the Chrysler Corporation Fund, Federal Crop Insurance Corporation and Elanco Products Company as a special project of the National FFA Foundation.



Real men wear make up.

Looks can be deceiving. But when you take a closer look at the Army National Guard, you'll like what you see.

For starters, we'll get you into the best physical condition of your life. And we'll do it by training you to be a soldier. You can learn the skills of the Infantry, Armor, or Artillery.

In exchange, you serve as little as one weekend a month and two weeks a year. You'll also have the opportunity to try things you've only dreamed of. Like repelling out of a chopper or pulling a flood victim to safety, or pushing your endurance through Adventure Training. You may also qualify for a \$5,000 grant under the Montgomery GI Bill, which combined with your salary could mean as much as \$18,000 for college.

All in all, the Army National Guard could be the most satisfying part-time job you'll ever have.

But to find out more, you'll have to scratch beneath the surface by returning this coupon, calling 1-800-638-7600, or by contacting your local Army National Guard.

Mail to: Army National Guard, PO Box 564, Hanover, Maryland 21076

Name _____ ☐ M ☐ F

Address _____

City _____ State _____ Zip _____

Phone Number (____) _____

U.S. Citizen ☐ Yes ☐ No Date of Birth _____

Soc. Sec. No. _____

I am: ☐ In High School ☐ In College

☐ H.S. Graduate ☐ College Graduate

Prior Military Service: ☐ Yes ☐ No

Branch _____

I understand there is no obligation. The information you voluntarily provide, including your social security number, will be used for recruiting purposes only. Your SSN will be used to analyze responses. Authority: 10 USC 563.



Americans At Their Best.

Chapter Scoop

Montrose, Colorado. FFA decided they wanted to make their own FFA Week poster and so they created an original, had it printed in three-color printing and distributed it throughout the community.

The all-seniors FFA team won the school ag olympics sponsored by **Princetonville, Illinois, FFA.**

For the teacher appreciation luncheon during FFA Week, the **San Jose, California,** Chapter hires a caterer, does the opening ceremony, tells about the year's activities and the officers tell about themselves.

Faculty and staff at **Ganado, Texas,** High School were all given corsages or boutonnieres by the chapter during FFA Week.

A new tradition started at **Upper Sandusky, Ohio,** FFA was to go to the church of the chapter president during FFA Week.

The mayor was among the 98 guests present for the appreciation breakfast served by the **Nampa, Idaho, FFA.**

Montgomery County FFA in **Mt. Sterling, Kentucky,** had a local bank post the dates and mention FFA Week on the bank's digital weather/time sign.

Members, parents and alumni took part in the Schuyler, Nebraska, FFA Chapter sponsored big buck and big doe contest. FFA members had to figure live weight evaluation, weighing procedure and estimated boned out weight.



Santa Claus made his yearly visit to the **Meridian, Idaho,** FFA Chapter's Christmas meeting. Entertainment also included ski by the members. In spite of bad weather, there was a good turnout.

Drewry Mason Middle School FFA in Virginia had 36 members complete a state prescribed hunter education course.

The community Easter Egg hunt was run by the **North Valley, Oregon,** Chapter. FFA gave out balloons and candy to over 50 children who found the colored eggs hidden by FFA members.

Lisbon, North Dakota, contributed \$150.00 to the community food pantry. The money was raised by co-sponsoring, with the student council, the spring dance. They charged \$1 to get in and sold pop.

Bon Homme, South Dakota, Chapter voted to take associate memberships in the local pork producer's council and the livestock feeder's association.

Special guests at the March meeting of the **Kuna, Idaho,** Chapter were the mothers of the members. Each one was presented a carnation. The program was about cheese, the different kinds, how it is made, the origin and history of various kinds.

In the **Antelope, Arizona,** Chapter it is the responsibility of the junior officers to plan activities for FFA Week.



The **Carlsbad, New Mexico,** FFA Chapter demonstrated some southwestern flavor at their December meeting. Instead of decorating the traditional Christmas tree, they decorated a large tumbleweed.

Powell/Shoshone, Wyoming, Chapter members made presentations to prospective enrollees for ag at an open house held for eighth graders.

New landscaping around the tennis complex on campus was a BOAC project of the **Haralson County, Georgia,** Chapter. Members planted over 1,000 shrubs for the complex, applied mulch, constructed walks to the facility, laid water pipe and planted grass and ornamental trees on the grounds.

Daleville, Alabama, Chapter toured the local department of public safety.

When the poultry production class unit ended at **Culpepper, Virginia,** the classes cooked breakfast in class. They conducted experiments to see if brown eggs were better than white. (Majority could tell the difference in the eggs by yolk color, but they all tasted the same.)

Members from **Cisne, Illinois,** Chapter visited the Louisville Farm Machinery Show in February.

Delta, Colorado, Chapter faced **Cedaredge** Chapter in the annual challenge cup which is a head-to-head contest between the two chapters. This year the contest was tubing for both speed and distance.



The **Upper Sandusky, Ohio,** FFA occupational experience committee keeps records of students who are looking for part-time jobs on farms or are willing to do odd jobs. The hours and wages are determined by the employer.

Susan Richards of the **Chowchilla, California,** Chapter is working on an international computer marketing project regarding beef exports to the Pacific Rim countries.

State College, Pennsylvania, FFA took two square dance teams to the state farm show and won a blue and a white ribbon.

Officers of the **Hanford, California,** FFA have put together a slide presentation of various chapter activities to take with them when they make recruitment presentations. They also often take small animals along to attract the attention of the younger students.

ATTENTION CHAPTER OFFICERS: Just because you are not in the classroom in July doesn't mean you should forget about sending in news, notes or nonsense about your chapter. Who is doing what? Where have you gone? What really fun events have you had for the chapter? Send in the Scoop to the editors at Box 15160, Alexandria, VA 22309.

State Money Drives New Ideas

Illinois State Leaders Invest in the Future of Agriculture

By Lanette Carlson

When two gilts named Cherry Blossom and Flo had their baby pigs in the high school ag shop in Cambridge, Illinois, it was a first in many ways.

It was the first time Cherry Blossom or Flo had ever given birth. For some of the grade school children in Cambridge, their visit to the ag shop-turned-farrowing house was their first opportunity to see pigs up close.

This was all made possible because Cambridge School District was one of the first schools in Illinois to sponsor an agricultural education pilot program with special state money. Cambridge was one of 12 school districts in Illinois to conduct these special test projects during the 1988-89 school year.

Sally Brooks, a member of the Illinois Committee for Agricultural Education and the Illinois Farm Bureau educational services staff, said that state funds have been earmarked for the improvement of ag education since 1986-87, but last year was the first time money had been set aside for pilot projects at selected schools. About \$15,000 was distributed among the 12 schools conducting the programs out of \$46,000 that was budgeted by the state last year for ag education. The successful test projects will be used as models for future ag education programs.

Illinois educators and agribusinessmen are hoping that more students will look seriously at careers in agriculture as a result of the programs and as a result, improved agricultural education. Working together in this effort are the Illinois Leadership Council for Agriculture Education, the Illinois Committee for Agricultural Education and the Illinois State Board of Education.

These state leaders are concerned about the decline in the number of students preparing for ag-related careers. Studies indicate that there is a critical shortage of capable workers in a number of agricultural fields. U.S. Department of Agricul-

ture labor statistics show that 13 percent of available jobs in agriculture will go unfilled. With about 37 percent of Illinois's workforce and about 22 percent of the total U.S. workforce employed in ag-related fields, it is important to train qualified people to fill these spots.

Husband-wife teaching duo Ron and Leanne Alhoun, agriculture and fourth grade teachers, respectively, at Cambridge School District, came up with a pilot project that centered around an "agriculture is more than farming" theme.

Thanks to the program, Cambridge FFA members learned that many other businessmen, besides farmers, depend on swine production for their livelihoods.

Cambridge elementary students learned about agriculture through several special activities planned by the FFA members, including an ag career day, poster and essay contests, working with computer programs that focus on agriculture as related to academic subjects, and seeing how hogs are raised first-hand.

Other states in the country will be watching this program with interest.

At the ag career day, 17 local businessmen and women were invited by the Cambridge FFA chapter to come to school and explain to the fourth-grade class how their jobs and pork products were related to agriculture, primarily hog production. Speakers included a home economics teacher, grocer, veterinarian, farm implement salesman, banker, county extension advisor, conservationist, feed salesman, butcher, pork producer and insurance salesman.

Along with the fourth-graders, Cambr-



Photo by Author

Cambridge, Illinois fourth-graders learned about the importance of hogs and other agricultural products during a special program funded by the state of Illinois.

idge agriculture students also had their eyes opened during the ag career day. Eric Hofer, project co-leader, said that while he had lived on the farm most of his life, he wasn't aware of all the jobs available in agriculture. "I learned that agriculture really is more than farming," said Eric.

Traveling to Springfield and speaking with state education and agribusiness leaders about Cambridge's pilot program was also a learning experience for student leaders Eric Hofer and Karl Hulin. Cambridge FFA members had to keep detailed records of the entire pilot project for presentation to the state.

Illinois leaders feel so strongly about improving agricultural education, supporting funds have been doubled for the cause. Ms. Brooks said that \$1 million has been earmarked out of the 1988-89 state budget for agricultural education. The money will be used for additional pilot programs next year and also for high school agriculture programs, development for elementary and high school classes, teacher training and for the development of an agriculture education resource center.

"Illinois is one of the first states to promote agricultural education to this degree," said Alhoun. "Other states in the country will be watching this program with interest."

Look Mom, No Soil!

Hydroponics is catching on in high schools all over the country

By Andrew Markwart

There is a new crop of greenhouses popping up across the country where talk of topsoil and vermiculite has turned to pH testing and ion control. It's hydroponics, greenhouse plant production minus the soil, and some high school agriculture programs are jumping in with both feet.

Hydroponics is really the second name to be associated with the science of raising plants without soil, according to David Lambert, horticulture instructor at Columbia River High School in Vancouver, Washington. The first was "aquiculture," but that name was already taken by fish farmers. Hydroponics is taken from a mixture of hydro, meaning water, and geponics, the Greek word meaning "earth working." Together, they mean "water working."

According to Dr. Howard M. Resh, in his book, *Hydroponic Food Production*, "Hydroponics is a very young science. It has been used on a commercial basis for only 40 years. However, even in this relatively short period of time it has been adapted to many situations, from outdoor field culture and indoor greenhouse culture to highly specialized culture in atomic submarines to grow fresh vegetables for crews. It is a space-age science, but at the same time can be used in developing countries of the Third World to provide intensive food production in a limited area. Its only restraints are sources of fresh water and nutrients."

Lambert was a pioneer in using hydroponic greenhouses to teach plant science in agricultural education. He had worked in the commercial hydroponic greenhouse

industry before becoming an agriculture teacher. He and his students built the first of two hydroponic houses over 14 years ago at Columbia River, which has a total of six greenhouses—five are stationary and one is mobile. His students have grown tomatoes, cucumbers, lettuce and carnations in the land without soil.

There are many kinds of hydroponic growing systems, including gravel and canal cultures. In the gravel culture, like the one at Columbia River, a nutrient-rich solution floods the beds of gravel and then drains back into a reservoir.

Increasingly popular are the canal growing systems where the nutrient solution flows past the plant roots in a trough and empties into a reservoir.

Since the fertilized water is recycled many times, and water evaporates and is absorbed by the plants, it is critical that

hydroponic growers closely watch the pH level and conductivity, or electrical charge, of the solution.

Enchanted Valleys

Two agriculture departments, Towns County, Georgia, and St. Marys, West Virginia, have become major producers of hydroponically-grown vegetables in their states.

In 1987, Towns County applied for a \$22,000 grant from the Tennessee Valley Authority (TVA) for a traditional greenhouse. According to school superintendent Bill Kendall, TVA said they could have \$50,000 if the school district made it a hydroponics greenhouse operation. They researched the market for vegetables in the Atlanta area and found an "endless market for Bibb lettuce," according to James Hester, school principal.



Thomas Kimsey and Stacie Trout harvest Bibb lettuce at the Towns County hydroponic greenhouse. This year, 145,000 heads are expected to be harvested.

Under the guidance of agriculture instructor Terry Queen, the agriculture department built a 60 x 90-foot greenhouse and began production in late September, 1988. The school now ships 60-70 cases of Bibb lettuce to the Atlanta farmers market twice a week bearing the name "Enchanted Valleys." The lettuce is delivered to the market by a local trucker who had previously made the trip to Atlanta empty. He charges a minimal fee for transportation.

The greenhouse can accommodate 12,463 heads of lettuce during full production. Yearly production is projected at 145,000 heads. All profits go back into the high school agriculture program. Agriculture students work after school and on weekends in the greenhouse. They are paid \$3.50 per hour and jobs are rotated so workers understand the entire operation.

Student teacher Ann Gibson said that a hydroponics class is offered to 10-12 grade students. The students start by working in the hydroponics house to understand the operation and then move back to the classroom to learn bookkeeping, purchasing and management. All sales and expense records are kept on computer.

The greenhouse has drawn attention from the press and interested growers. "People from all over Georgia and North

(Continued on Page 28)

Horticulture students are responsible for checking the pH level of the nutrient solution with the help of Columbia River instructor David Lambert. *Photos by Author*



Papa Would Be Proud

Vegetable shoppers in Bismark, North Dakota, pay a little extra for Dave Pearce's hydroponically-grown "Papa's Greenhouse" tomatoes. Pearce has been raising and marketing the vine-ripened, hand-picked tomatoes since 1980. He sells directly to about 12 supermarkets in Bismark, Mandan, Dickinson and Minot.

Pearce and his staff harvest 1,000 pounds of tomatoes on an average day, picking three times a week. From the beginning, Pearce has relied on innovative marketing and unsurpassed quality to get a premium price for his produce. "We're sensitive to our customers and we work hard to maintain a quality relationship with them. We've found that people will pay for quality."

Because his tomatoes are ripe when they arrive at the store, Pearce says in-

ventory control and timing are critical. "What we pick tomorrow morning will be on the shelf tomorrow afternoon and probably will be sold tomorrow night," he explains.

Pearce does his own in-store promotions where he'll use anything from a tomato song to the "BLP" (bacon, lettuce and Papa's tomatoes) sandwich. Both the tomatoes and hydroponically-grown cucumbers carry the "Pride of Dakota" sticker.

Pearce is a former North Dakota FFA president, has received his American Farmer degree and is an active Alumni member that includes his sponsorship of the state horticulture proficiency award.

Dave Pearce and his hydroponically-grown, hand-picked "Papa's Greenhouse" tomatoes.



Carolina come to see what we're doing, especially farmers from around Towns County," said hydroponics student Jeanie Dayton, 16.

The operation is open to the entire community and some citizens volunteer to work. Instructor Queen says the greenhouse has been a model Building Our American Communities program and is seeing the benefit already. "Some people are already talking about starting their own hydroponics operation."

Growing for Major Cities

According to FFA chapter reporter David Meeks, the St. Marys agriculture department received a grant from the state department of education to help build two hydroponic greenhouses in August of 1987. The greenhouses were built by agriculture students with the help of FFA Alumni members. They also installed all wiring and plumbing. One greenhouse was constructed for lettuce production, the other for cucumbers and tomatoes.

Meeks says the produce is marketed to both restaurants and grocery stores in Pittsburgh, Cleveland, Columbus and Washington, D.C. and locally in St. Marys. "Of all the aspects of the venture, the marketing of the produce has been the most challenging and educational," says Meeks. "Students have learned how to compete with produce grown in Califor-



Dawayne Elliott checks a water hose carrying nutrients to the St. Marys FFA Chapter Bibb lettuce operation.

nia and Florida. They've also learned about seasonal variation of prices."

He says the chapter uses the AgriData computer service to access fruit and vegetable prices to stay competitive. With the guidance of advisor Erwin Berry, the greenhouses are managed by agriculture student Dallas Scadden who is responsible for student labor, checking nutrient levels, securing markets, transplanting and greenhouse systems management.

The greenhouses employ over 20 students to plant, manage, harvest and market the produce. Students supplement their Supervised Agricultural Experience programs through the wages they receive.



Dana Soukup, national FFA president, and West Virginia state officers examine lettuce seeds used at St. Marys.

Start Small and Experiment

The Madelia, Minnesota, agriculture department keeps their small hydroponic greenhouse inside its mechanics shop to save on heating bills, according to agriculture instructor Brad Schloessor.

Schloessor says he bought the unit at a greenhouse products liquidation sale for \$400 while it was still in the crate. The agricultural mechanics class assembled it in the corner of the shop where it would be exposed to the most light. Madelia does not have a conventional greenhouse.

He and some bargain-hunting students, including Jen Sluiter, 1988 Minnesota Agriscience Student Recognition Program winner, talked to a local hydroponic grower, Jack DeVries, of Hollandale, who was in the process of changing his hydroponic growing system over to new equipment. For next to nothing, the Madelia group acquired all the hardware they needed to get started. DeVries also helped by offering advice on how set-up the

equipment to grow Bibb lettuce.

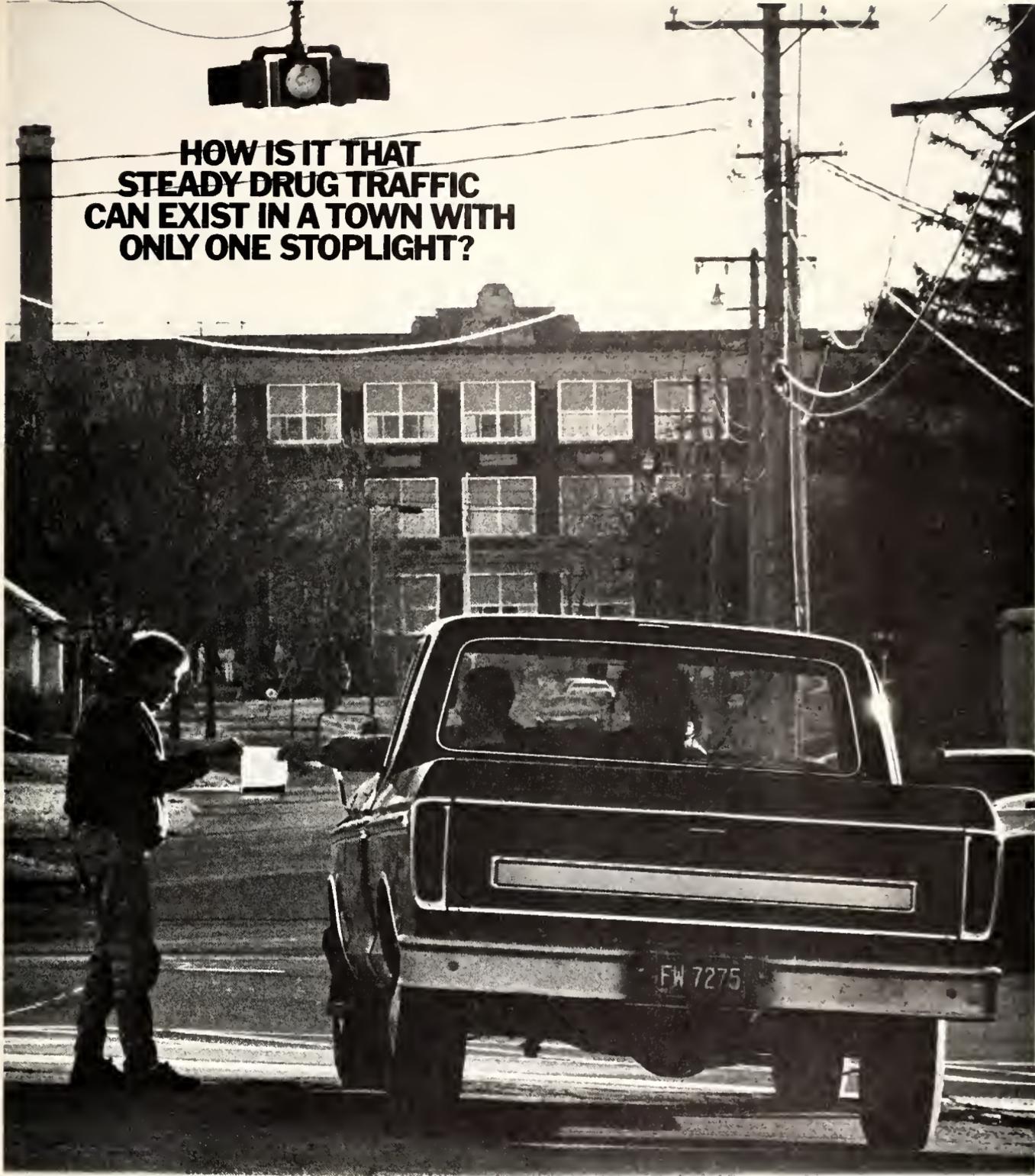
Sluiter and a fellow biology student were the first to try a lettuce crop. After weeks of careful work and observation, the plants wilted and died over a holiday weekend when the system's five-gallon water reservoir ran dry.

This year, using a 20-gallon water reservoir, agriculture students Todd Arduser and Randy Streit successfully grew and harvested the first crop of lettuce. Now they are experimenting with the system to make it more efficient. The two students realized that their light source had made the lettuce plants grow too tall, so different colored lights will be tested to produce the best results.

Schloessor says that a small hydroponics system can easily be put into a conventional greenhouse for experimental tests and that touring a commercial hydroponics grower is an important first step for schools interested in getting started.



Randy Streit, left, and Todd Arduser with Bibb lettuce seedlings in front of Madelia's experimental hydroponic greenhouse.



**HOW IS IT THAT
STEADY DRUG TRAFFIC
CAN EXIST IN A TOWN WITH
ONLY ONE STOPLIGHT?**

Drugs are no longer strictly a big city problem. Kids are being exposed to illegal drugs like marijuana, crack and cocaine every day in small, safe, little towns like yours.

Today, 28% Of Our Small Town Kids Are Into Big Town Drugs

That's right. Nearly a third of our kids here in the country have experimented with drugs. Some

have gotten hooked. Others have gotten into dealing the stuff.

The sad fact is, to most kids, drugs are no big deal. They get it from their friends and use it wherever they are... a dorm room, a shopping mall parking lot, an isolated country road.

What can you do? Stop ignoring the signs. If your kids have lost weight, if they seem lethargic, if their grades and attendance have

dropped off at school, they're into drugs and they need your help.

Don't let them down. Bring the problem of drugs to light in your town.

**Partnership
For A Drug-Free
America**

Against the Odds

Two FFA proficiency winners decide to tackle unfamiliar territory

By Kim Balfe

Have you ever wanted to do something that was just a little bit out of the ordinary? Something that people wouldn't believe you would do?

Greg Stull lived in the city he wanted a job on the farm. Bill Syme came from a dairy background but wanted to try his luck at raising mums. These two FFA members took a chance and eventually achieved national recognition in their proficiency areas.

Greg Stull realized that living in the middle of Walkersville, Maryland, population 2,200, didn't offer many opportunities to get the true "hands-on" farming experience. He decided to do something about it.

The 1988 National Placement in Agricultural Production winner enrolled in agriculture class in the ninth grade and became involved with the Supervised Agricultural Experience (SAE) program. He was interested in obtaining a job on a farm and began to inquire at neighboring farms about possible job opportunities.

Most people weren't really concerned that I hadn't grown up on a farm and lacked experience," Greg said. "Instead, most farmers said that they were financially unable to hire additional help." After several interviews and job offers he accepted a position at Queen Acres Farm as a general farm worker.

"Initially I thought it would have been a problem," said Greg's employer, James Osborn, about Greg's lack of experience. "But he was eager and willing to please and we needed the help, so I hired him."

Greg's duties were mostly with the dairy operation in his first year. His responsibilities grew along with his crop expertise and mechanics skills.

Greg says it was difficult at first, so he

asked lots of questions, searched for answers and learned. "I'll call the local co-op or other places to get answers to questions that I have on fertilizer use, herbicide instructions, or whatever. I also subscribe to several farm magazines to keep up with the latest in agriculture," said Stull.

In 1986 he was given the responsibility of caring for all the farm machinery. Greg

Acres has provided me with the practical aspect of my goal to become an agricultural engineer."

The Osborn's have recently moved to different facilities and Greg is working on rewiring the barn to bring it up to electrical code. His four-year anniversary was this past March.

"I've learned a lot," said Greg. "I'd encourage anyone to do what I did. Don't let a good opportunity pass you up because you don't think you can do it."



Bill Syme gave up dairy cattle to work with chrysanthemums.

Holsteins for Mums

Bill Syme, the 1988 Eastern Region Floriculture winner, took a different approach in expanding his agricultural opportunities. He began his SAE program on his grandfather's dairy farm with 12 head of Holstein cattle. In 1985 he decided to move out of the dairy cattle business and into something different.

Bill and his family live about eleven miles outside of Hartford, Connecticut. This area is experiencing a considerable amount of urban development which, according to Bill, would have hindered any hope of expanding his dairy

program. "I really had an interest in the crops part of the farm and working in the field, so I began to explore my options," said Bill. After consulting with his parents and agriculture teachers he decided he would grow flowers.

"I had certain limitations. Land was my biggest obstacle so I needed to find something that could be grown in a compact space. The crop had to be easy to grow and hardy enough to withstand the outdoors," he explained. He checked with the local extension service and area

used the farm's computer to develop a spreadsheet program which tracked the maintenance records of the equipment.

Greg was promoted to assistant field manager in 1987 which charged him with the additional responsibilities of planning the crop rotations as well as planting and harvesting dates. His employer, Mr. Osborn, is an airline pilot, so Greg is responsible for the operation of the farm when he is away.

According to Greg, "The practical experience I have gained working at Queen

nurseries to determine what sold well. Bill selected chrysanthemums and invested in 200 plants.

After a successful first year, Bill reinvested the profits in equipment and 700 more plants. He also expanded his market by selling wholesale to a local garden center.

"Raising mums is time consuming but the growing season takes place during the summer and it doesn't interfere with my college schedule," said Bill. During the busy planting and harvesting seasons his family helps.

Bill's program has gradually increased over the last two years to 4,700 plants in 1988. He hand-planted his crop up until

1988 when he purchased a one-row tobacco planter which increased planting efficiency.

"If a student really wants to excel in an area, that individual will overcome many obstacles to succeed. Bill is a good example of that," said Stan Pullen, director of vocational agriculture programs at Rockville High School. ...

The Placement in Agricultural Production proficiency award is sponsored by DEKALB Genetics Corporation and LeaseAmerica Corporation. The Floriculture proficiency award is sponsored by The Paul Ecke Poinsettia Ranch, The Lerio Corporation, American Floral Endowment and Professional Plant Growers Association. Both are special projects of the National FFA Foundation.



Proficiency winner Greg Stull grew up in town, but wanted to work on a farm.

A Day in the Industry



Leon Heisey, Manheim, Pennsylvania, visited ADM headquarters in Decatur, Illinois, on a trip organized by the National Grain and Feed Association.

By Rachel E. Vining

Leon Heisey of Manheim, Pennsylvania, an FFA member and sophomore in agricultural engineering at Penn State University, believes from his FFA activities and experiences there is a future for young people in agricultural business and industry.

A few weeks ago, a program called "Spend a Day in the Grain and Feed Industry," confirmed this as Heisey visited the Archer Daniels Midland company headquarters in Decatur, Illinois.

"When people say agriculture is a dying field, I'd like for them to see what I've seen," said Heisey about his tour.

What Heisey saw was the country's largest wet corn processing operation that each day transforms hundreds of thousands of bushels of corn into consumer products. "The engineer in the plant told us all they are doing is taking a kernel of corn and processing it into many different

valuable products such as (high fructose) corn syrup, feeds, ethanol, corn meal and corn oil," Heisey said.

The corn process fills a room the size of three football fields with vats, gauges, separators, mill and other machinery. The engineering student said "I'd enjoy operating something like that. The chemical engineering for the processes that the corn goes through is a little intimidating, but the whole operation is fascinating."

The processing operations, as well as most of the ADM complex, are supplied with energy from its on-site energy plant. The plant also creates excess carbon dioxide and heat which is utilized in a 10-acre hydroponics operation producing vegetables and cut flowers.

"I was impressed by how much pencil pushing it must take to figure out how everything should work together. For instance, chemical engineers had to figure out how much carbon dioxide was needed for so many plants in so much space. You know they didn't just start growing a couple of heads of lettuce," Heisey said.

The "hydrofarm's" year-round heat, concentrated carbon dioxide, 24 hour artificial light, balanced nutrients and controlled environment accelerates production by 20 percent. This green factory produces cucumbers, tomatoes, lettuce, strawberries, herbs and flowers in uniform size, shape and quality.

From a greenhouse with plant scientists in lab coats, Heisey went to ADM's trading room with about 60 traders dealing with grain, edible oils, peanuts, cotton and barge loads of grain.

"(The traders) could sell a contract for over a million dollars in half a minute while talking on two phones and getting information from someone across the room. They won my respect," Heisey said.

At a local country elevator, Tabor Grain Co., a subsidiary of ADM, Heisey even visited with some of the farmers stopping in to check on the markets. Through an information support system from ADM, The country elevator's computer terminals receive grain prices just a few seconds behind the Chicago Board of Trade.

Heisey won the trip through a drawing organized by the National Grain and Feed Association. The program was sponsored this first year by ADM/Growmark, (a subsidiary of Archer Daniels Midland); Bunge Corporation; Central Soya/Feruzzi; Peavey (A ConAgra Company); Continental Grain Company; General Mills, Inc.; Harvest States Cooperatives; and Illinois Cereal Mills. The drawing was held at the NGFA booth at the Agricultural Career Show during the National FFA Convention in Kansas City, Missouri last November. Heisey chose the visit to ADM out of the sponsoring facilities. The NGFA hopes to expand its youth program to include many more FFA members and company visits next year.

The NGFA is one of the original 32 sponsors of the FFA Career Show, which began in 1965. ...

FFA In Action

Utah

Double Your Leadership

The Sky View FFA chapter sits in the picturesque mountainous Cache Valley of Utah. In this growing chapter of 92 members, there is certain uniqueness in the officers. Two sets of twins fill four of the chapter officer positions. Their names are Justin and Jerin Lawson and Kelly and Cory Smith.

Justin and Jerin are identical twin girls born June 17, 1971, to Robin and Connie Lawson. They are third and fourth of five children. They look and dress exactly alike. They both share the same interests which include horses, barrel racing, working with animals, softball, the outdoors, and all sports. Justin and Jerin do everything together and they think there are no disadvantages to being twins.

Justin and Jerin live on a small farm in Lewiston where they enjoy raising various animals. Because of their interest in these animals and the outdoors they became involved with the FFA.

They have been on the horse judging team for four years, and participated on the parliamentary procedure team their sophomore year. They both received the Chapter and State Farmer Degrees. They have attended state conventions and the national convention in Kansas City this past fall. Their agricultural experience projects all four years included horse, sheep and swine production.

Justin was the chapter historian her junior year and is currently serving as vice president. Jerin has served as the chapter reporter both her junior and senior years.

Kelly and Cory were born to Roger

and Nancy Smith April 28, 1972. They are the oldest of five children and the only boys. Although they look a lot alike, they are not identical. Kelly and Cory enjoy hunting, both water and snow skiing, fish-



The twins on the officer team are Jerin Lawson, reporter and Justin Lawson, vice-president. In back are Cory Smith, secretary and Kelly Smith, treasurer.

Alabama

Country Stars Honor Their Ag Instructor

On January 10, 1989, a press conference was held in Ft. Payne, Alabama, at the ALABAMA Fan Club, to distribute funds from the "June Jam." The quartet made a \$1,000 donation to the Alabama FFA Foundation in memory of Mr. E.B. Rotch, agribusiness education teacher and FFA advisor of Randy Owen and Teddy Gentry. Shown during the presentation are Lloyd Borden district supervisor, Northeast Alabama; Kelvin Whitaker, state FFA officer and member of the Kate Duncan Smith DAR FFA Chapter; Mrs. Rotch, and Randy Owen from ALABAMA.



ing and most sports. Even though they do everything together, Kelly says there are no advantages to being a twin. Cory thinks the only advantage is having to pay half of the car payment. They both agree that the disadvantages of being twins are they always get the same things and people mix their names up.

Kelly and Cory have worked on a dairy farm since the age of ten, for Ken Munk in Amalga where they also live. Cory joined the FFA his freshman year, but Kelly didn't until his sophomore year. They have both received the Greenhand and Chapter degrees and are working on their State Degree. Kelly has participated in the creed speaking contest. They have been involved with the ag bowl and won first place showing dairy cattle at the western invitational. Kelly is currently serving as chapter treasurer and Cory is secretary. (David Erickson, Advisor)

Washington

Fishy Business

The FFA members in Elma, Washington, worked with the Washington State Fisheries Department in collecting some 9.6 million salmon eggs from 7,920 salmon at the Simpson & Satsop Springs

hatcheries. This year ten of our members hatched and released 165,000 young silver salmon.

We have a permit with the state, whereby, our members are legally entrusted with five to ten thousand eggs each to propagate and release in designated streams. These fish will be used to help re-establish the salmon runs to the coastal rivers of western Washington.

The fish are grown in the hatchery ponds from four to eight months before planting into the streams. The size of fish released in each stream depends on the food supply and the hostility of stream environment. (From the National Chapter Award application)

Pennsylvania

Teamwork To Win

These past few months have been busy ones for eight members of the Captain Jack FFA Chapter of Mount Union, Pennsylvania. Four guys and four girls teamed up to make the chapter's very first square dancing group.



The square dancers were, front row left to right, Linda Fisher and her partner Ralph Brotemarkel; Penny Fisher and her partner Lee Forgy; second row, Dawn Garner and her partner Paul Kurtz; and Beth Lair and her partner Larry Forgy.

On January 10, the dance team entered the big competition and came away with a red ribbon and some very good memories. (Linda Fisher, Reporter)

Colorado

Don't Let the Gate Slam Shut

Just a year ago, the school board at Bennett High School in Colorado was ready to take the first step in closing down the

agriculture department and the chapter.

The school board gave three main reasons for putting an end to the chapter. First, the school was not financially able to support the department or the chapter. Second, the enrollment of the classes was down, so it would not affect that many students. Finally, the board said it would be a perfect year to close the chapter, because the instructor was leaving the school anyway. The school board proposed an alternate plan to send the members to a nearby agriculture department.

After the board realized the strong feelings the members had about their chapter, they were kind enough to set up a "special meeting." The members and the community citizens had the chance to present their ideas about the importance of agricultural education. A few of the members gave speeches to try and direct the board in making the right decision—to keep the chapter.

Just a few weeks later, the school board agreed to keep the agriculture department and the chapter at Bennett. However, the board gave the chapter two to three years to prove themselves to the board, the school, the community and the state.

It has been almost a year since this happened and the members have developed a new chapter.

Our new advisor has made a tremendous impact on this chapter. The advisor, members and their goals and dreams are the true heart of any chapter. This chapter has the ambition to succeed. (Jodi Jacoby, Reporter)

Washington

Free Dance

Working with the Thurston County Task Force on Safe and Sober Driving and all the high schools in Thurston County, Yelm, Washington, FFA co-sponsored a drug and alcohol-free dance as an alternative to those activities by the youth of our county.

The dance was held at the Olympia community center and chaperoned by people from all schools as well as family members and the police department. A variety of activities such as pool, ping-pong and conversation were provided along with the dance and free refreshments and soft drinks. This was so successful that we are looking at providing four per year in the next school year with one or two more this year.

Members volunteered and several were named on the planning committee as well

as representatives to the Thurston Regional Task Force on Safe and Sober Driving. (From the National Chapter Award application.)

Ohio

Olympic Eaters



The Mississinawa Valley, Ohio, FFA Chapter held their annual ag olympics during National FFA Week. There were numerous relays for the classes in the school such as the tractor tire race, pedal tractor race and hammer and saw contest. In a pie eating contest, guys gulped down the whipped cream and cherries while the girls shoveled it in. Each class worked as a team to try to get the most points. (Anita Bergman)

Ohio

Truth and Consequences

Evergreen, Ohio, FFA'ers took part in a safety project on the consequences of drunk driving, at the county court house in Wauseon. The program was coordinated by Carol Willson, Fulton County Farm Bureau safety director and John Pultz, Farm Bureau director.

The sheriff's department had Deputy Mark Robinson and Deputy Rick Brock demonstrate the way a person is stopped and questioned on a DWI charge. They also answered questions on apprehension of suspects.

Dean Dennis Fahringer was the insurance representative to talk about what happens to insurance coverage and costs after a DWI conviction.

Two videos were also shown, one regarding seat belt safety, and the other describing what takes place at the scene of an accident. Other youth from Evergreen High School representing SADD, American Government class, Farm Bureau youth, and 4-H took advantage of this opportunity besides FFA. They were all treated to pizza and refreshments afterwards. (Rachel Henricks, Reporter)

(Continued on Page 34)

FFA In Action

Georgia

Page Boys

The Pepperell, Georgia, Chapter was represented at the Georgia General Assembly by president Chuck (Willie) Jackson, and vice-president Danny Story. They served as pages for senators and Governor Joe Frank Harris.

As pages, their duties were to serve as messengers. Chuck and Danny ate lunch with the senators and had pictures made with the governor.

The Pepperell Chapter was happy to be chosen for this General Assembly event during FFA Week. (John Cloutre, Reporter)

Minnesota

All the World's a Stage

Members of the Sanborn-Lamberton-Walnut Grove, Minnesota, FFA are ushers for one of the performances of Walnut Groves' summer pageant "Fragments of a Dream." It depicts the life in Walnut Grove with Laura Ingalls Wilder and her family in the 1870's.



The FFA members are pictured here on one of the pageant sets "Oleson's Store." They are pictured with their FFA advisor, Ron Kelsey, who plays the part of Mr. Oleson. FFA members, left to right, are Jon Jeckell, David Pabst, Tammy Schwanke, Ron Kelsey, (Mr. Oleson), Doug Moody, Kurt Scheffler and Oak Kelsey.

The pageant attracts thousands of people annually and is performed "On the Banks of Plum Creek" near Walnut Grove.

Maryland

English Is the Centerpiece

Christmas presents aren't exchanged in Linh Do's native Vietnam, but here in the U.S. his family has a holiday tree and

Linh celebrated his first Christmas in America. Linh and about a dozen students in Pat Brown's English as a Second Language class for middle school got some Christmas goodwill from the horticulture students at the Frederick County Vo-Tech Center in Maryland.

They got Christmas centerpieces, and the friendship of a group of older students who are taking the new kids under their wings. Each FFA member in horticulture and landscaping class helped a child make a centerpiece.

The centerpiece activity was the first

experience the agriculture classes had with the English language students, but it won't be the last.

To keep the comradery alive between the horticulture and English students, Leslie Bieber, president of the Vo-Tech chapter, planned a party for the youngsters when they returned from winter break.

The classes working together benefited the students in a strange land and helped the FFA members grow. (Karen Gardner, Frederick News-Post Staff)

(Continued on Page 36)

Highway Helpers

Sapulpa, Oklahoma, FFA

Sapulpa, Oklahoma, FFA joined their state's Adopt-A-Highway Program. Signs bearing the name of the organization that adopted the stretch were placed at both the beginning and the end of the portion they've adopted.

The two miles that we have adopted are in front of our school farm. (Lisa Tackett, Reporter)

Coronado FFA in El Paso, Texas

The Coronado Chapter in El Paso, Texas, adopted a Texas highway through the state highway department. It involves such tasks as cleaning the adopted road, making sure everything is kept in order on that stretch, and giving the adopted highway a little love. The highway adopted by FFA covers two miles and is located near the Rio Grande River in El Paso. (Carolyn Wise, Reporter)

Glen Rose, Texas, FFA

Highway 67 runs right through Glen Rose, Texas, and litter could be seen all along this roadway. So, who could better come to the rescue than the FFA?

When the Texas State Department of Highways and Public Transportation recognized the need and desirability of litter-free highways, the "Adopt-A-Highway" program as well as the "Don't Mess with Texas" slogan originated. As a part of the statewide program, the FFA Chapter "adopted" a two-mile stretch of highway.

In agreement with the State Department of Highways and Public Transportation, the Glen Rose Chapter must clean their stretch of highway at least six times each year. Also, along with abiding by certain safety rules, the group has agreed

to pick up trash on the annual "Great Texas Trash Off" day. In its third year, this is a day when all groups involved in the "Adopt-A-Highway" program clean up their stretch of highway.

So, every other month, The Glen Rose FFA Chapter puts on official "Adopt-A-Highway" vests, journeys to



Safety vests are part of "official dress" when members work along their stretch of the highway.

Highway 67 to clean up the highway, and afterward enjoys refreshments and fellowship. For this FFA Chapter, cleaning the highway in their hometown is fun rather than work. (Curtis Childers, Reporter)

Elgin, Oklahoma, FFA

Recently, 80 Elgin, Oklahoma, FFA members and their advisors helped clean up the community by picking up trash along Highway 17. Their stretch of adopted highway runs two miles west of Elgin. (Rhonda Hall, Reporter)

MARKETPLACE

FRAMED SOUVENIR JACKET EMBLEMS

ARE NOW AVAILABLE
FOR PURCHASE FROM THE
NATIONAL FFA SUPPLY SERVICE

These emblems, revised in 1988, will no longer be manufactured and they will not be available once the current stock is depleted. The emblem is mounted on blue corduroy jacket material and is framed in our #3011 black frame. A message will accompany the framed emblem indicating this is the original emblem which was used from 1928 to 1988.

The framed back (large) jacket emblem is available for \$5.95 (item JEM-F1). Both front and back emblems in the same frame are available for \$6.95 (item JEM-F2). Virginia Residents - add 4.5% sales tax.

SEND ORDERS TO:

The National FFA Supply Service
Department DM - 1
P. O. Box 15160
Alexandria, Virginia 22309

ARE YOU TRAVELING ABROAD IN THE NEAR FUTURE?

FFA has foreign language phrase-books in many languages:

Chinese	Danish
Dutch	Finnish
French	German
Hungarian	Italian
Japanese	Norwegian
Polish	Portuguese
Spanish	Swedish

Send \$4.95 plus .50 cents shipping
(Virginia Residents - add 4.5% sales tax).

MAIL TO: International Department
National FFA Center
P. O. Box 15160
Department DM-4
Alexandria, VA 22309

Illustrated Set of Aim & Purposes of the FFA

- Full Color Individual Illustrations 8" x 10"
- Matted for Framing or Direct Display
- Includes an FFA Purpose Under Each Picture

*"The Aim and Purposes of the FFA
Illustrated with FFA Paintings and
Packaged as a Complete Set
in a File Envelope."*

\$2.50 Per Set

Virginia Residents Add 4.5% Sales Tax

MAIL ORDER TO: National FFA Center
P. O. Box 15160, Dept. DM-2
Alexandria, VA 22309

1989 CLOSING DATES FOR MAIL ORDER ADVERTISING

February/March
December 20

April/May
February 20

June/July
April 20

August/September
June 20

October/November
August 20

December/January
October 20

FOR MORE INFORMATION CONTACT:

MARVIN LABINER
The National FUTURE FARMER
130 West 42nd Street
Suite 1804
New York, New York 10036
TELEPHONE: (212) 840-0660
FAX: (212) 944-1884

GUARANTEED 10 YEARS!

\$3.96
CLOSED

The knife for hunting, fishing and all around use. Mirror polished sharp stainless steel blade. Rugged. Comes with a carrying case and a lifetime warranty. Sturdy Leather Belt Case \$1.95 ea. 10 YEARS WE WILL REPLACE AT NO CHARGE! Use 30 days money back. First purchase add \$1.99 shipping & handling. ORDER TODAY! Money Back Guarantee. 3043 S. Western Ave. Chicago, IL 60622. Mail orders only. OUR 22nd YEAR.

30 DAY MONEY BACK OFFER



Hatching prizewinning chicks, ducks, turkeys, pheasants, goslings, guineas. Free catalog.

RIDGWAY HATCHERIES, INC.
LaRue 22, OH 43332 614-499-2163

BANTAMS, EXOTIC RARE BREEDS Fighting Games, Ducks, Turkeys, Guinea



Pheasants. 100 varieties. Shipped direct to your local post office. Safe shipment guaranteed. Hatching eggs. Books. Supplies. Incubators. Medications. Send 50c for Big Colorful Poultry Catalog. **CROW POULTRY & SUPPLY** Box 106-9 Windsor, Missouri 65360



Big Jim™ Halters Scientific Marvel Controls The Meanest Animals

Halter breaks cattle, sheep, goats etc. in half the time. Call or write for free catalog of unique & exciting products.

Big Jim Halter Co. (512) 249-2480
Rt. 3, Box 3138, Boerne, TX 78006

Custom Made

COOKBOOKS

A great fund raising project for clubs, churches, families — any organization. Write for a . . . **FREE KIT BOOK!**

Dept. NFF 507 Industrial Street, Waverly, Iowa 50677



100 Years of Progress

American
1889 • Hampshire Sheep • 1989
Association

P. O. Box 345, Ashland, MO 65010 • Telephone (314) 657-9012

"America—We are the FFA"

"America—We are the FFA" is a powerful five-and-a-half minute image-building anthem which has been visualized through video and slides. It sings of the spirit and pride of FFA members and those working in agriculture. The music, introduced on screen by Larry Gatlin, is exciting, contemporary and targeted for a youth audience. "Rock on" with FFA—order your copy of the video or stereo audio cassette today!

To order, send a check or money order to:

Information Department
National FFA Center
P. O. Box 15160, Department DM-3
Alexandria, Virginia 22309

VHS video tape	\$17.95
Cassette tape	4.50
shipping & handling	2.00

Production of "America—We Are The FFA" was sponsored by The Wrangler Brand as a special project of the National FFA Foundation, Inc.

Find yourself overseas

Experience Europe and Australia with farmers who provide work, board, lodging, wages for 3-13 mos. Great opportunity for unique cultural adventure for those 18-28. Call **1-800-432-FARM** or write CA Exchange Program, P.O. Box 677, Fergus Falls, MN 56535

"A World Journey"

... is a 9-minute video on the international opportunities available to FFA members and alumni through the National FFA Organization. This is an excellent video to use in chapter meetings or in the classroom. The tapes can be purchased for \$8.00 each from:

International Department, National FFA Center
P. O. Box 15160, Dept. DM-5, Alexandria, VA 22309

FFA In Action



Each state officer received a copy of the proclamation signed by their governor. Left to right: Roland Fumasi, president; Joshua Cook, vice president; Kristi Sowell, treasurer; Governor Deukmejian; John Grice, sentinel; Wendi Adams, secretary; and Joel Gonzales, reporter.

California

Autograph Seekers

The Honorable George Deukmejian, Governor of California, recently met with the state officers in order to declare California's participation in National FFA Week. While there the Governor presented each officer with a signed proclamation.

The meeting was arranged by the State FFA Foundation in an effort to increase the public's awareness of the activities sponsored through the FFA organization and to create an understanding of the importance of vocational agriculture in the state's high school system.

During the visit, the officers had the chance to ask the Governor questions regarding his responsibilities as the leader

of the state. The officers also were able to provide him with some information as to the direction our organization is taking.

At the recently held State FFA Executive Committee meeting, members voted to bestow the Governor with the Honorary State Farmer Degree, the highest honor awarded by state associations. The state officers are encouraging his attendance at California's annual state leadership conference.

Following the discussion the Governor presented each officer with a gold pin bearing the state seal. In return, the officers presented him with a pin symbolizing the 1988-89 state FFA theme, "Opportunities for the Future of Agriculture."

Ohio

Scientific Methods Out in the Field

The eleven seniors in the Tri-Rivers Horticulture class in Marion, Ohio, are cooperating with extension agents from Marion, Crawford and Morrow counties to conduct bioassay experiments to benefit the local farmers.

The purpose of these experiments is to determine whether last summer's drought affected the degradation of herbicides in our soils which in turn could cause plant damage to this year's crops and affect crop rotation recommendations for this area. Many feel that the low amounts of rainfall will affect herbicide carryover. These herbicides were applied last summer, and may be in the topsoil instead of

being degraded. These herbicide residues could cause a wide range of plant problems in the coming year, especially if farmers rotate their crops as usual.

A series of bioassay experiments has been set up using 70 actual field soil samples. The pesticide application history of these soils has been recorded and crops with varying degrees of herbicide sensitivity have been planted in these samples. The tests are being conducted on soils where Command, Atrazine, Treflan, Scepter, and Preview have been applied as these are the herbicides most commonly used in this area. Over 80 separate samples are being used.

The cooperative extension agents hope to provide our local farmers and agricultural dealers with valuable information by studying how these samples grow.

The horticulture class has been involved with this project right from the beginning. They learned about the procedure and the phytotoxic effects of certain herbicides prior to helping plant the samples on November 28. Each student is in charge of compiling records for his or her samples and for watering these samples as well. Proper watering and record keeping will be crucial in interpreting the results of these experiments. The results will be distributed at a special farmers' meeting.

This cooperative project has been very beneficial to the students, who are learning about herbicides and scientific experimental methods, as well as to our local extension agents, who needed a greenhouse and the extra hands to help conduct and monitor these samples.

Oklahoma

A New Home on the Range

Kingfisher, Oklahoma, FFA and Kingfisher Alumni members consider themselves very fortunate to have had the opportunity to host a delegation of Future Farmers of Japan. The group of ten came from the Kyoto prefecture in Japan and will stay in the United States for a study period.

The Japanese delegation included the principal of the agricultural high school in Kyoto; five of his high school students; two college students; a 32-year old dairy farmer who owns the largest dairy of the Kyoto prefecture in Japan (an 87-cow herd); and an interpreter who is a graduate student of Central State University in Oklahoma majoring in political science.

Also serving as tour guides for the Japanese delegation were Kirk Martin, administrative assistant for Lt. Governor Robert S. Kerr, III, and Diane Wittrock, home economist for the Oklahoma Department of Agriculture.

One highlight stop during the visit was for the Polled Hereford tour and field day at HVH Farms owned by John Loewen near Waukomis. The Japanese delegation toured along with Kingfisher FFA members. Approximately 150 breeders were present.

The cattle the group saw were donor cows and recipient cows with embryo transfer siblings. High tech purebred operation and management were discussed.

Sunday was mostly an international recreation day for the FFJ and the FFA members and alumni. (Tara Mueggengborg, Reporter)

My Turn

with

Jeff Isom



As the universe expands, our world is shrinking, not in terms of physical size or number of people, but in a way that is having as great an effect. The barriers that separate people, ideas, culture, and the products they produce are gone. Although they have existed since the beginning of civilization, the rapid infusion of technology into society by the many nations of the world are causing the barriers to be torn down at a frantic pace.

The barriers have been replaced by supersonic airliners, the fax machine and satellite news. As a result, our world of five billion people is becoming a global community. But is it a world we understand? Is it a world we enjoy? Is it a world that we can succeed in? Those who can answer "yes" to these questions are those who will find a place for themselves in the global community of the future. As their world shrinks, they'll see that their knowledge expands.

International awareness has become of key importance for those wishing to succeed in the future in agriculture. It is vital that we realize that this holds true. The preparations we make today toward understanding international agriculture will decide the fate of our nation's number one industry.

This was demonstrated to me very clearly during our national officer international experience. I discovered that a basic knowledge in three areas would help American agriculturists to compete and succeed in the international arena: people, products, and possibilities.

Although the United States is perhaps the greatest nation on the Earth, we sometimes let our pride overshadow our interest in the rest of the world's people—the very people who are our potential markets.

It's important to understand the culture and language of others in order to communicate and decide what their needs and wants are. In Japan, young people who spoke to us would often apologize about the quality of their English. We were

unable to communicate in Japanese at all. This often creates a problem in trying to cater to a market who we can't communicate with and whose needs we don't understand or try to fill with an "American" product that "works for us so it must work for them." We must know the people, their ways and lifestyles in order to discover the second component, the product.

What, when and how we ship is just as important as understanding the people and their wants. Buyers in the interna-

The preparations we make today toward understanding international agriculture will decide the fate of our nation's number one industry.

tional market, like all consumers, are looking for a quality product at a reasonable cost that fits their tastes. The trick is being able to adapt to what or how something must be raised as well as understanding the channels it must go through in getting a product to its destination. This process involves all areas of agricultural careers from researchers to producers to distributors. With an understanding of people and products the possibilities can be recognized.

There is a tremendous amount of possibility in the international area. It's just a matter of stretching our knowledge to understand it, and then discovering those possibilities. A Japanese businessman told me that the world is looking to the United States to lead them into the 21st century. As future leaders it is up to us to gain an understanding of that world so we can be standing at the forefront of agriculture; prepared to discover the possibilities. As the world shrinks, we must be prepared to expand our knowledge, our talents and our understanding. ...

TRAIN FOR A CAREER AS A VETERINARY TECHNICIAN

Bel-Rea is the only proprietary school in the United States affiliated with a veterinarian clinic for "hands-on" students. Our 18-month course will fully prepare you for a career as a caring animal technician for either large or small animals. Students have the opportunity to be instructed by veterinarians and our clinic affiliation affords students an abundance of surgical assisting experience.

Earn an Associates of Applied Science degree and embark on a rewarding career. For information and class schedules, call us today.

**CALL TOLL FREE:
1-800-950-8001**



Bel-Rea Institute of Animal Technology
1681 South Dayton Street
Denver, Colorado 80231

American Veterinary Medical Assn. and NATTS accredited approved for veteran training, financial aid assistance available

Approved and regulated by the Colorado State Board for Community Colleges and Occupational Education

WHY WELDERS MAKE SUCH GOOD MONEY



And how you can benefit.

Skilled welders are always in demand. At very good pay. And we can show you how to get in on it. No big building goes up without skilled welders. No ships can be launched without welders. No airplanes take off without welders. You can learn how to be a skilled welder in a short period of time.

Fact is, welders build the backbone of America's economy. Become one. Act now.

I want a skill like this!

Name _____
Address _____
City _____ State _____ Zip _____
Phone () _____ Yr HS Grad _____

AAA Welding School, Inc.
9363 East 46th Street South
Tulsa, Oklahoma 74145
(500) 247-7860

Joke Page

Q. What is the definition of a tricycle?
A. A tot rod.

Greg Reed
Somerset, Kentucky

Woman to husband all bandaged up in the hospital, "When I think what you did to the car, I could cry!"

Melanie Warren
Thayer, Missouri

One night two boys were sleeping in a farmer's pasture when one said, "It's getting pretty cold, huh?"

The other agreed and got up and closed the pasture gate.

Terry Dickman
Westby, Wisconsin



"If acid rain is such a problem, why don't we just seed the clouds with an antacid?"

The father told his neighbor, "I think my son has finally grown up."

"How did you come to that conclusion?" asked the neighbor.

"Well, last night I caught him looking at a girl the way he used to look at a plate of chocolate chip cookies."

Bobbie Mae Cooley
Bowen, Illinois

Joe: Have you read Shakespeare?

Mike: No.

Joe: Have you read Longfellow?

Mike: No.

Joe: I give up. What have you read?

Mike: I have red suspenders.

Robbie Simpson
Greensburg, Kentucky

One day Bill was riding his horse in the desert. A guy came up in a car and asked if he wanted a ride. Bill accepted and got into the car.

They were going 50mph and Bill asked, "Aren't we going awfully fast?"

The driver replied, "The faster you go the cooler you get."

By this time, they were going 150 mph and Bill said, "Well, let me off up here by this horse."

Later, Bill was riding the horse and kept making it go faster and faster and faster till the horse fell over.

"Darned horse must've froze to death."

Greg Schichtle
Haskell, Oklahoma

Q. Why do the junior campers always run out of shampoo?

A. Because they keep following the directions that say—lather, rinse, repeat.

Marty Fike
Towner, North Dakota

Patient: "During my operation I heard the surgeon use a four-letter word that upset me very much."

Nurse: "Which word was that?"

Patient: "Oops."

Toby Natherne
Cut Off, Louisiana

The garden enthusiast was asked why she'd stuck artificial flowers among the plantings in her garden border. "They're just there," she explained, "to encourage the real ones."

Oliver E. Frazier
Rock Hall, Maryland

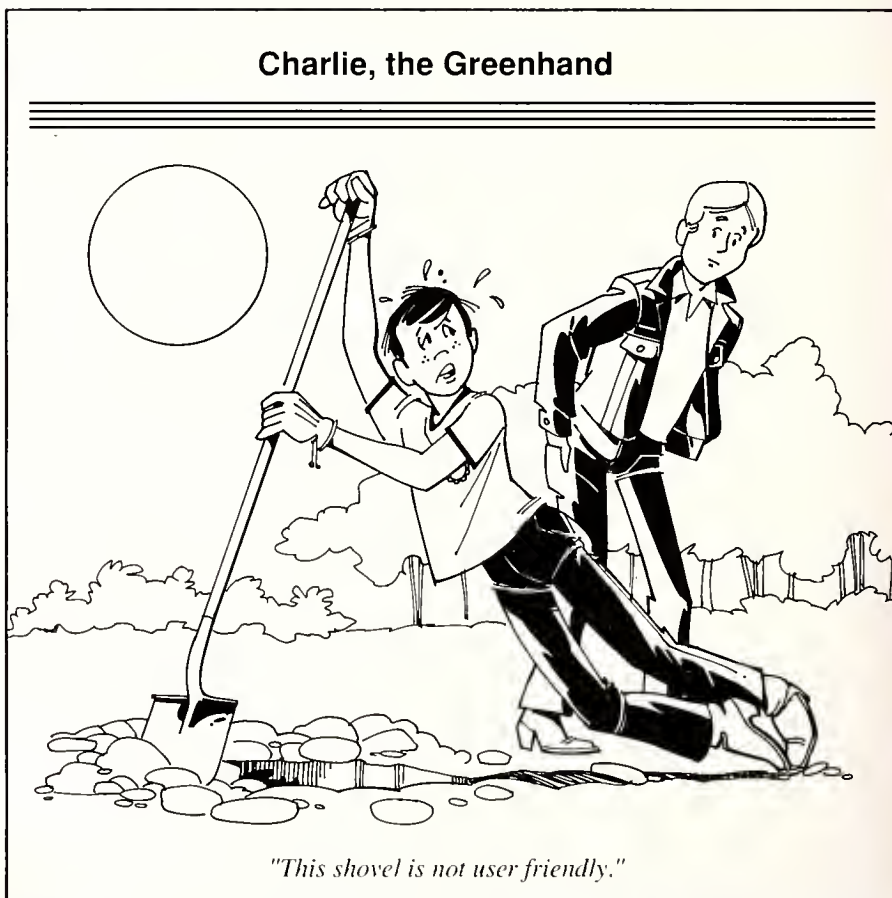
"Mother," said a little boy, after coming home from a walk. "I've just seen a man who makes horses."

"Are you sure?"

"Yes, he was nailing on its back feet."

Christine Spoonie
Clear Spring, Missouri

Charlie, the Greenhand



NOTICE: National FUTURE FARMER will pay \$5.00 for each joke selected for this page. Jokes must be addressed to The National FUTURE FARMER, P.O. Box 15160, Alexandria, VA 22215 or via Stargram on the Ag Ed Network to FE100A. In case of duplication, payment will be for the first one received. Contributions cannot be acknowledged or returned.



Get the Facts on potential threats to Groundwater Quality

Groundwater is too important to be taken for granted. Where water quality is concerned, protection is better than a cure.

Join ACRE—the Alliance for a Clean Rural Environment—an educational organization to encourage environmental stewardship and protect water quality.

Your free enrollment will provide fact sheets, newsletters and other materials about how to protect ground and surface water through the safe storage, use and disposal of crop protection chemicals.

ACRE is proudly sponsored by 20 producers of America's crop protection chemicals.

To join ACRE call 1-800-545-5410
or write: P.O. Box 413708
Kansas City, MO 64141

ACRE
ALLIANCE FOR A
CLEAN
RURAL
ENVIRONMENT

WORK ON SOMETHING THAT'LL BLOW THE DOORS OFF ANYTHING.



It'll crank out a generous 50,000 horsepower. (That's roughly the equivalent of 204 fully-loaded Corvettes.)

It'll go from 0 to 1,350 mph in slightly under a minute (give or take a sound barrier). And it's no slouch in the corners at any speed.

It's the F-16 Fighting Falcon. One of the most sophisticated jet fighters in the world. And it requires someone just as sophisticated to bring out the beast in it.

An Air Force mechanic.

Become one and you'll benefit from the most thorough technical training around. Even more important, you'll get plenty of opportunities to apply it. That's guaranteed.

But there's a lot more to the Air Force than high rpm's.

We'll get almost any career off to a flying start. From computers and electronics to medicine and communications. Over 200 choices in all.

We'll also further your education. Pick up college credits or even an Associate of Applied Science degree in the fully-accredited Community College of the Air Force.

So if you're the kind of person who loves to make things move fast, call 1-800-423-USA. We'll do the same for your career.

AIM HIGH.

